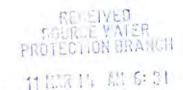
Bryan W. Shaw, Ph.D., Chairman Buddy Garcia, Commissioner Carlos Rubinstein, Commissioner Mark R. Vickery, P.G., Executive Director





### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 9, 2011

TO: Persons on the attached mailing list.

RE: Uranium Energy Corp

TCEQ Docket Nos. 2008-1888-UIC and 2009-1319-UIC SOAH Docket Nos. 582-09-3064 and 582-09-6184 Permit Nos. UR03075 and UR03075PAA1

### **Decision of the Commission on Application.**

The Texas Commission on Environmental Quality ("TCEQ" or "Commission") has made a decision to grant the above-referenced applications. Enclosed with this letter is a copy of the Commission's order and draft copies of the permit, Aquifer Exemption Order, and Production Area Authorization. Unless a Motion for Rehearing ("MFR" or "motion") is timely filed with the chief clerk, as described below, this action of the Commission will become final. A MFR is a request for the Commission to review its decision on these matters. Any motion must explain why the Commission should review the decision.

### Deadline for Filing Motion for Rehearing.

A MFR must be received by the chief clerk's office no later than 20 days after the date a person is notified of the Commission's order on these applications. A person is presumed to have been notified on the third day after the date that this order is mailed.

Motions may be filed in accordance with the requirements in 30 Texas Administrative Code § 80.272 and Texas Government Code § 2001. 146 with the chief clerk electronically at <a href="http://www10.tceq.state.tx.us/epic/efilings/">http://www10.tceq.state.tx.us/epic/efilings/</a> or by filing an original and 7 copies with the Chief Clerk at the following address:

LaDonna Castañuela, Chief Clerk TCEQ, MC-105 P.O. Box 13087 Austin, Texas 78711-3087 Fax: 512/239-3311

In addition, a copy of the motion must be sent on the same day to each of the individuals on the attached mailing list as indicated by an asterisk (\*). A certificate of service stating that copies of the motion were sent to those on the mailing list must also be sent to the chief clerk. The procedures for filing and serving motions for rehearing and responses are located in 30 Texas Administrative Code (TAC) §80.272 and 30 TAC §1.10-1.11. The hardcopy filing requirement is waived by the General Counsel pursuant to 30 TAC §1.10(h).

The written motion must contain (1) the name and representative capacity of the person filing the motion; (2) the style and official docket number assigned by SOAH or official docket number assigned by the Commission; (3) the date of the order; and (4) a concise statement of each allegation of error.

Unless the time for the Commission to act on the motion is extended, the MFR is overruled by operation of law 45 days after a person is notified of the Commission's order on the application. If the Commission does not receive a motion for rehearing, the permit, Aquifer Exemption Order, and Production Area Authorization will be issued and forwarded to appropriate parties.

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance toll free at 1-800-687-4040.

Sincerely,

LaDonna Castañuela

Castanila\_

Chief Clerk

LDC/ms

Enclosure

### Uranium Energy Corp TCEQ Docket Nos. 2008-1888-UIC and 2009-1319-UIC SOAH Docket Nos. 582-09-3064 and 582-09-6184

#### FOR THE APPLICANT:

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#### INTERESTED PERSONS:

See attached list.

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### FOR THE CHIEF CLERK via electronic mail:

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\* The Honorable Richard R. Wilfong Administrative Law Judge State Office of Administrative Hearings P. O. Box 13025 Austin, Texas 78711-3025

\* Courtesy Copy via e-Filing

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HOUSTON TX 77056-1958

ABRAMEIT , MILDRED 1005 FM 622 VICTORIA TX 77905-5205 ALBRECHT, DOROTHY 1732 POST OAK RD GOLIAD TX 77963-3321

ALBRECHT, EMMETT 1732 POST OAK RD GOLIAD TX 77963-3321 ALBRECHT, JOYCE 208 DAVIS AVE GOLIAD TX 77963-3916 ALBRECHT, KATHY & RAY 4792 DANFORTH RD GOLIAD TX 77963-3541

ALBRECHT, TRAVIS W 721 AUGUSTA DR ROCKPORT TX 78382 ALLEN-LAMPLEY , BARBARA 2103 BON AIRE AVE VICTORIA TX 77901-4419 ALTMAN, DORA 4854 POST OAK RD GOLIAD TX 77963-3323

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ANKLAM , THOMAS 14859 N US HIGHWAY 183 YORKTOWN TX 78164-5612 ARNECKE, CALTON 1690 NAGEL RD VICTORIA TX 77905-3119 ARNECKE, KELLY & TERESE 316 LOVE RD VICTORIA TX 77904-4517

ARNECKE, SHERILYN 1690 NAGEL RD VICTORIA TX 77905-3119 ARNOLD, KARON & RAYMOND 120 DOBSKYVILLE RD YORKTOWN TX 78164-5462 ARNOLD , RAYMOND 120 DOBSKYVILLE RD YORKTOWN TX 78164-5462

ARU, MICHAEL W 16344 US HWY 59 S BERCLAIR TX 78107 ATZENHOFFER, CG 1801 E LOMA VISTA AVE VICTORIA TX 77901-4219 . BAACKE, CLINTON PO BOX 1117 GOLIAD TX 77963-1117

BAACKE, RUTH 1358 N SAN PATRICIO ST GOLIAD TX 77963-3922 BADE , ALDON & BRENDA E 147 FM 1961 YORKTOWN TX 78164-5457 BAIAMONTE, ROB

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BALL, WESLEY & DUKE, JOHN B PO BOX 562 GOLIAD TX 77963-0562 BARNHART, JOHN N PO BOX 626 BERCLAIR TX 78107-0626 BEARD , ELIZABETH & MICKEY 1551 FOX CROSSING RD MEYERSVILLE TX 77974-4121

BEARD, ELIZABETH HAUN 1551 FOX CROSSING RD MEYERSVILLE TX 77974-4121 BEDNORZ, GLENNETH 10347 FM 622 GOLIAD TX 77963-3612 BEDNORZ , RAY
382 COLETOVILLE RD S
VICTORIA TX 77905-3041

BEGO, JOEL PO BOX 802 GOLIAD TX 77963-0802

BEGO , KRISTINA PO BOX 802 GOLIAD TX 77963-0802 BENNETT, DANNY 104 ANGUS ST VICTORIA TX 77904-2846

BENNETT , LINDA 104 ANGUS ST VICTORIA TX 77904-2846 BETTGE, CATHERINE & RICHARD 306 BETTGE LN MEYERSVILLE TX 77974-4154 BETTGE, RICHARD 306 BETTGE LN MEYERSVILLE TX 77974-4154

BILLINGS , JAMI PO BOX 277 WEESATCHE TX 77993-0277 BLACK, MONICA DIAZ SIERRA CLUB 12310 MELON ST SAN ANTONIO TX 78247-4357 BLACKBURN JR , JAMES B
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BLUMICH , LINDA 106 CREEK DR GOLIAD TX 77963-3471 BLUNTZER , CHARLES K 208 WESTCHESTER DR VICTORIA TX 77904-1858 BLUNTZER , JIM 1260 BLUNTZER RD GOLIAD TX 77963-3403

BOCHAT, MATT 518 N MOUNT AUBURN GOLIAD TX 77963-3924 BODE, ANNE PETTUS 627 W GARDEN ST GOLIAD TX 77963-3909 BODE , BILL 107 SCENIC LOOP DR GOLIAD TX 77963-3820

BODE , CHARLES WILLIAM 107 SCENIC LOOP DR GOLIAD TX 77963-3820 BODE, JENNY PO BOX 796 GOLIAD TX 77963-0796 BODE, JUDY 107 SCENIC LOOP DR GOLIAD TX 77963-3820 BODY, DARRELL
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YORKTOWN TX 78164-5448

BROWN, GENE & RETA

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BROWN, GENE

UIAG 468 FM 1961

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BRUMBY , DEBBY & KIRBY 3600 POST OAK RD

3600 POST OAK RD GOLIAD TX 77963-3347 BRUMBY , DEBBY 3600 POST OAK RD

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BUCHHORN, ALTA & LESLIE L 3100 FANNIN RD VICTORIA TX 77905-3017 BUELTER, DAPHNE & KENNETH W 8168 FM 2441 GOLIAD TX 77963-6001 BUELTER , KENNETH W 8168 FM 2441 GOLIAD TX 77963-6001

BURROWS , ROLAND A PO BOX 731 YORKTOWN TX 78164-0731 CALDWELL , JOHN & PEARL J 5501 DANFORTH RD GOLIAD TX 77963-3546 CALDWELL, JOHN W 5501 DANFORTH RD GOLIAD TX 77963-3546

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CHRIST, LARRY & MAGGIE 29 GOLJAD N GOLJAD TX 77963-3447 CHRIST , LARRY 29 GOLIAD N GOLIAD TX 77963-3447 CHRIST , LAURENCE K 29 GOLIAD N GOLIAD TX 77963-3447

CHRIST, MARGARET A 29 GOLIAD N GOLIAD TX 77963-3447 CHRISTOPHER , W W 5300 OLD GOLIAD RD GOLIAD TX 77963-3317 CITIZENS, CONCERNED
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VICTORIA TX 77904-1207

COFFMAN , AILEEN 1307 N DE LEON ST VICTORIA TX 77901-5944

COLLINS , CHRISTINE & LAMAR M 2848 WEBER RD VICTORIA TX 77905-3130 CONCERNED CITIZEN, 246 WAGON TRL VICTORIA TX 77905-5201 CONCERNED CITIZEN,
PO BOX 40
FANNIN TX 77960-0040

CONCERNED CITIZEN , 302 N HUMMEL ST VICTORIA TX 77901-7038 CONCERNED CITIZEN, 25 SAM HOUSTON AVE LA WARD TX 77970 CONCERNED CITIZEN, 348 N MOUNT AUBURN GOLIAD TX 77963-3997

CONCERNED CITIZEN, PO BOX 1221 GOLIAD TX 77963-1221 COOK, GINGER & LYNN 3933 KILGORE RD GOLIAD TX 77963-3659 COOK , GINGER
3933 KILGORE RD
GOLIAD TX 77963-3659

COPPENOLLE , LORETTA VAN 14115 OAKLAND MILLS ST SAN ANTONIO TX 78231-1635 COREY , BILL 63 DONDO LN GOLIAD TX 77963-3210 CORNISH, JOE 1307 N DE LEON ST VICTORIA TX 77901-5944

COWGER, JAMES 418 N MOUNT AUBURN GOLIAD TX 77963-3959 CUSHING , LARA
PO BOX 830706
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DAVIS , CAROL 4207 MANAHUILLA ST GOLIAD TX 77963-4010 DAVIS , FLORINE S PO BOX 84 GOLIAD TX 77963-0084 DAVIS, KEVIN 3407 HALLEMANN RD GOLIAD TX 77963-3374 DE LAY, DON L 7930 S WELLINGTON CT HOUSTON TX 77055-3511

DE LUNA, JOE M 135 CHERIE BROOK DR GOLIAD TX 77963-3903 DEFOREST, ALVIN 1545 E FM 1961 GOLIAD TX 77963-3414 DEFOREST, ALVIN 4529 DANFORTH RD GOLIAD TX 77963-3540

DOERR, JOHN 709 WESTWOOD DR GOLIAD TX 77963-3929 DOHMANN, ART PO BOX 562 GOLIAD TX 77963-0562 DOHMANN, ART & KOZIELSKI,JOE PO BOX 562 GOLIAD TX 77963-0562

DOHMANN, ARTHUR A PO BOX 117 WEESATCHE TX 77993-0117 DREIER, JOHN & SMITH, BARBARA PO BOX 562 GOLIAD TX 77963-0562 DREIER , JOBN & MARGIE L 3692 FRANKE RD GOLIAD TX 77963-3617

DREIER, JOHN H
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DREIER , MARGIE 3692 FRANKE RD GOLIAD TX 77963-3617 DUDERSTADT, ASHLEY 8915 FM 236 CUERO TX 77954-5712

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DUDERSTADT , CRAIG & LUANN 722 DUDERSTADT RD YORKTOWN TX 78164-5459 DUDERSTADT, DARWYN PO BOX 127 WEESATCHE TX 77993-0127

DUDERSTADT , DORIS & WILBURN R 744 ARNOLD RD GOLJAD TX 77963-3302 DUDERSTADT , LUANN 722 DUDERSTADT RD YORKTOWN TX 78164-5459 DUDERSTADT, WAYNELL & DUDERSTAND, DARWYN 1708 WEISE RD YORKTOWN TX 78164-5604

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DUKE, JOHN B 2900 HENCERLING RD GOLIAD TX 77963-3449 EDWARDS , DARRYL PO BOX 1103 GOLIAD TX 77963-1103 EDWARDS, GLADYS PO BOX 1103 GOLIAD TX 77963-1103

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REFUGIO GROUNDWATER CONSERVATION DIS
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FABIAN , JOAN 531 ADRIAN DR SAN ANTONIO TX 78213-3404 FELS , HOWARD 5440 RIVER TRL ROBSTOWN TX 78380-5889

STE 700

FELS, HOWARD

500 N SHORELINE BLVD CORPUS CHRISTI TX 78401-0399

FITZPATRICK , PAUL 134 SCHREINER PL SAN ANTONIO TX 78212-5226 FLORES, CARMEN PO BOX 634 GOLIAD TX 77963-0634 FLORES, JULIAN
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FOERSTER, DARWIN A 508 DUNDEE ST VICTORIA TX 77904-2877 FOERSTER, HUBERT A 510 DUNDEE ST VICTORIA TX 77904-2877 FOERSTER , MARY 510 DUNDEE ST VICTORIA TX 77904-2877

FOLKS , JOAN S PO BOX 324 WEESATCHE TX 77993-0324 FONSECA , JACQUELINE APT 707 5380 MEDICAL DR FORD, DIANA & DON G 5287 FM 884

SAN ANTONIO TX 78240-5228

YORKTOWN TX 78164-2094

FOSTER , DEBBIE 1099 DUDERSTADT ROAD # 2 YORKTOWN TX 78164 FRANKE, DOUGLAS & WANDA E 1603 W FM 884 YORKTOWN TX 78164-5167 FRANKE , SHANNON 7017 FM 622 GOLIAD TX 77963-3758

FROST , KRISANNE 116 BLUE STAR SAN ANTONIO TX 78204-1713 FULTON , CAROL 6369 STABLE FARM SAN ANTONIO TX 78249-4644 GALVAN , VERONICA 111 W ROSEWOOD AVE SAN ANTONIO TX 78212-2330

GASTON , ROBERT W PO BOX 1800 CORPUS CHRISTI TX 78403-1800 GAYLE, BRIDGET PO BOX 1310 GOLIAD TX 77963-1310 GAYLE, ROBERT B PO BOX 1310 GOLIAD TX 77963-1310

GEORGIE , JO & KENNETH PO BOX 305 NURSERY TX 77976-0305 GILL , RICHARD 917 COLAKE DR VICTORIA TX 77905-4023 GIRAUDIN , BETTIE 914 FM 1351 GOLIAD TX 77963-3706

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GLOOR, GARLAND & SHERRY 2484 FM 622 GOLIAD TX 77963-3745 GLOOR, GARLAND 2484 FM 622 GOLIAD TX 77963-3745 GOHLKE , WARREN 667 OAK RIDGE DR GOLIAD TX 77963-3964 GONZALES, ELIDA PO BOX 654 YORKTOWN TX 78164-0654 GREESON , JACK 762 ARNOLD RD VICTORIA TX 77905-2517 GREESON , MILTON PO BOX 2509 VICTORIA TX 77902-2509

GRIESER, JOEL & JOYCE 5016 E FM 1961 GOLIAD TX 77963-3443 GRIFFITH, GERALD 4335 DANFORTH RD GOLIAD TX 77963-3408 GRIFFITH, MR & MRS GERALD A 4335 DANFORTH RD GOLIAD TX 77963-3408

GUERRA , REFUGIO PO BOX 194 WEESATCHE TX 77993-0194 GUTHRIE, MACK & SUE N 2262 FANNIN RD VICTORIA TX 77905-3071 GUTIERREZ , ALFRED 3332 E OAK ST GOLIAD TX 77963-4297

GUTMANN , MR & MRS G A 2432 COLOGNE RD VICTORIA TX 77905-4155 GUTMANN, G A 2432 COLOGNE RD VICTORIA TX 77905-4155 GUTMANN , VICKY 2432 COLOGNE RD VICTORIA TX 77905-4155

HALEPESKA , ABRADELLA J 962 BLUNTZER RD GOLIAD TX 77963-3529 HALEPESKA, GARY D 962 BLUNTZER RD GOLIAD TX 77963-3529 HARDT, ANNIE 734 DOBSKYVILLE RD YORKTOWN TX 78164-1958

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HAUSMAN, ERNEST & FRANCES M 103 OXFORD DR SAN ANTONIO TX 78213-4062 HEINE , ROY 237 MIDWAY RD GOLIAD TX 77963-3314 HENCERLING , DAN & MARILYN 2148 HENCERLING RD GOLIAD TX 77963-3449

HENDERSON , CLEO & WAYNE 6064 E FM 1961 GOLIAD TX 77963-3443 HENSON, MARSHALL 468 DANFORTH RD GOLIAD TX 77963-3405 HERNANDEZ , ANTONIO G PO BOX 646 GOLIAD TX 77963-0646

HERWEEK, LINDA 3230 W FM 884 YORKTOWN TX 78164-5161 HIEBNER , DENISE & PERRY 1385 SEILER RD YORKTOWN TX 78164-5278 HIEBNER, DENISE 1385 SEILER RD YORKTOWN TX 78164-5278 HILBRICH , MARK PO BOX 1056 GOLIAD TX 77963-1056 HILBRICH, MARLENE 722 CAMP COLET RD GOLIAD TX 77963-3799 HILL, DORIS & WILLIAM V 3208 BENT BOW DR SAN ANTONIO TX 78209-3518

HILL JR , WILLIAM V 3208 BENT BOW DR SAN ANTONIO TX 78209-3518 HINMAN , MICHELE & ROBERT PO BOX 354 GOLIAD TX 77963-0354 HOBLIT , KAREN & RANDALL 1768 BERGER RD GOLIAD TX 77963-3437

HOBLIT, KAREN 1768 BERGER RD GOLIAD TX 77963-3437 HOCH, MARY 5818 TANGLEWOOD DR CORPUS CHRISTI TX 78412-4544 HOFFMAN , DONNA 1500 GREGORY ST AUSTIN TX 78702-2732

HOFFMAN , DONNA SIERRA CLUB - LONE STAR 1202 SAN ANTONIO ST AUSTIN TX 78701-1834 HOLY , ROBIN M 502 CLAY DR VICTORIA TX 77904-1382 HORNSBY , KAY
73 SANDCASTLE DR
PORT LAVACA TX 77979-5782

HORNSTEIN , MR & MRS MARVIN 1417 FM 622 VICTORIA TX 77905-3110 HOUCK, JARON D PO BOX 1391 GOLIAD TX 77963-1391 HUFF , LOIS
5818 SAINT ANDREWS DR
CORPUS CHRISTI TX 78413-3719

HUGHES , CHARLOTTE 526 NOLL RD MEYERSVILLE TX 77974-3965 HUGHES , PETER 526 NOLL RD MEYERSVILLE TX 77974-3965 IRWIN JR, GEORGIA & RAULIE L 3148 W FM 884 YORKTOWN TX 78164-5306

IRWIN, GEORGIA ANNE 3148 W FM 884 YORKTOWN TX 78164-5306 IRWIN, RAULIE
PO BOX 562
GOLIAD TX 77963-0562

IRWIN JR , RAULIE L 3148 W FM 884 YORKTOWN TX 78164-5306

IZUMI , KENNETH APT 1706 8602 CINNAMON CREEK DR SAN ANTONIO TX 78240-5812 JACKSON , KATHLEEN PO BOX 1 FANNIN TX 77960-0001 JACOB, BETTY & JOE 312 N CHURCH ST GOLIAD TX 77963-3943

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JOHNSTON , MILDRED 2904 KIPLING ST VICTORIA TX 77901-7621 KARNOWSKI , HENRY & PEGGY 205 CANTERBURY LN VICTORIA TX 77904-1781

KELLMAN , STEVEN G 302 FAWN DR SHAVANO PARK TX 78231-1519 KERSEY, BETTY PO BOX 32 GOLIAD TX 77963-0032 KERSEY, WILLIAM PO BOX 32 GOLIAD TX 77963-0032 KEY, MARILYN & W WAYNE 1737 ALBRECHT RD GOLIAD TX 77963-3432

KEY, WAYNE 1737 ALBRECHT RD GOLIAD TX 77963-3432 KLINKERMAN, KIRK PE 2561 BAECKER RD GOLIAD TX 77963-3483 KLOTZMAN , MELVIN PO BOX 3723 VICTORIA TX 77903-3723

KORNFUEHRER, BARBARA & GAYLON 12922 GOLDEN RAINBOW DR CYPRESS TX 77429-3804 KRENECK, JANET 6999 OLD GOLIAD RD GOLIAD TX 77963-3318 KRENECK , JIM 6999 OLD GOLIAD RD GOLIAD TX 77963-3318

KRUEGER, MARK 939 NOLL RD MEYERSVILLE TX 77974-3953 LADNER, JAMES & MARY E 5791 S SH 119 YORKTOWN TX 78164 LANDRESS , JUDY 242 MONTCLAIR DR CORPUS CHRISTI TX 78412-2703

LANGE, LARRY 7483 N US HIGHWAY 183 GOLIAD TX 77963-3522 LANGE, WILLIAM 107 LAUREL OAK CIR CUERO TX 77954-2147 LEFTWICH , JOSH
URANIUM ENERGY CORP
STE 900
400 MANN ST
CORPUS CHRISTI TX 78401-2046

LEMESSURIER , PHILIP STE 703 8700 CROWNHILL BLVD SAN ANTONIO TX 78209-1136 LEMKE, J W 1029 FM 1351 GOLIAD TX 77963-3705 LENAMON, AUBREY & JAUBREY 237 SANDY LN VICTORIA TX 77905-3036

LENAMON , JUDY 237 SANDY LN VICTORIA TX 77905-3036 LESTER , KYLE 1322 COLETOVILLE RD S VICTORIA TX 77905-3043 LEWIS , PAMELA 11818 MISSION TRACE ST SAN ANTONIO TX 78230-2122

LEWIS, SANDRA PO BOX 677 GOLIAD TX 77963-0677 LIGHT , WALTER
PO BOX 6598
SAN ANTONIO TX 78209-0598

LINZER, J NAOMI J NAOMI LINZER INDEXING SERVICES 422 STAGES DR CORPUS CHRISTI TX 78412-2810

LONG, PAM 358 E FM 1961 GOLIAD TX 77963-4404 LONG, TED COMMISSIONER PCT 4
GOLIAD COUNTY
358 E FM 1961
GOLIAD TX 77963-4404

LOVETT, DENISE & PATRICK 5170 DANFORTH RD GOLIAD TX 77963-3543

LUDE , DOROTHY 271 W FM 884 GOLIAD TX 77963-3304 LULE , MAUREEN 4748 STATE HIGHWAY 119 GOLIAD TX 77963-3326 MANNING , JAN 4791 STATE HIGHWAY 239 W GOLIAD TX 77963-3850 MARTIN, EDNA 1996 ABRAMEIT RD GOLIAD TX 77963-3602 MCCRANEY, PATTI PO BOX 148 GOLIAD TX 77963-0148 MCKINNEY, BELITHA B
"BEA"
962 LEE ALVES RD
YORKTOWN TX 78164-5246

MCKINNEY, BELITHA & MELVIN H 962 LEE ALVES RD YORKTOWN TX 78164-5246 MCKINNEY , FRANCEY & RICIA 107 TAMPA DR VICTORIA TX 77904-1654 MCKINNEY , RICKI 107 TAMPA DR VICTORIA TX 77904-1654

MEYER, MARY 700 WILLOW DR RICHMOND TX 77469 MEYER , ROBERT W 305 SIMPSON RD VICTORIA TX 77904-1476 MIKESKA , MR & MRS JASON 14870 N US HIGHWAY 183 YORKTOWN TX 78164-5643

MONTAGUE, WM 3339 FM 622 GOLIAD TX 77963-3748 MONTGOMERY , LOUIS & SHARON 1431 LEMKE RD GOLIAD TX 77963-3428 MOORE, ANNETTE 179 FRANKE RD GOLIAD TX 77963-3664

MOORE, JUSTIN 20 STERLING PL BROOKLYN NY 11217-3204 MOORE, WENDY RESSMANN 20 STERLING PL BROOKLYN NY 11217-3204 MORGENROTH, BOB PO BOX 2431 VICTORIA TX 77902-2431

MORRIS , MARILYN & TOM 1883 FOX RD GOLIAD TX 77963-3416 MOSLEY, DOROTHY J 2150 HENCERLING RD GOLIAD TX 77963-3449 MOTAL, PAUL D
3315 GALESBURG DR
AUSTIN TX 78745-5811

MULLENIN , MARTHA CITY OF GOLJAD PO BOX 1 GOLJAD TX 77963-0001 MULLENIX , MARTHA
TEXAN EXPRESS
PO BOX 1
GOLIAD TX 77963-0001

NEAL , DOROTHY 13747 FM 622 VICTORIA TX 77905-3030

NELSON, LINDA L 166 OLD GOLJAD RD GOLJAD TX 77963-3330 NEWMAN , KATHY B 8414 TIMBER FAIR SAN ANTONIO TX 78250-4163 ORMAND , JAMES & ROSALIE PO BOX 239 WEESATCHE TX 77993-0239

ORMAND, JAMES
PO BOX 239
WEESATCHE TX 77993-0239

ORMAND , ROSALIE TETER PO BOX 239 WEESATCHE TX 77993-0239 ORR, SUSAN 1742 E FM 1961 GOLIAD TX 77963-3368

ORR , WELDON SCOTT 1742 E FM 1961 GOLIAD TX 77963-3368 OVERLANDER , MARY ANN 3744 OLD GOLIAD RD GOLIAD TX 77963-3315 OVERLANDER , SHANNON 3746 OLD GOLIAD RD GOLIAD TX 77963-3315 OWENS, WAYNE
10502 RAFTER S TRL
HELOTES TX 78023-3824

PARKINSON , DONNA 1984 HALLEMANN RD GOLIAD TX 77963-3352 PARKINSON, ROBERT 1984 HALLEMANN RD GOLIAD TX 77963-3352

PARMA, JOYCE J 1182 DOBSKYVILLE RD YORKTOWN TX 78164-1959 PAULSGROVE, STEVEN G PO BOX 1234 GOLIAD TX 77963-1234 PENA , STACY STOCKTON 1371 HALL RD GOLIAD TX 77963-3671

PERKINS JR , DOYLE E 661 MARGIL ST GOLIAD TX 77963-4309 PERRY, RODNEY
PO BOX 1103
GOLIAD TX 77963-1103

PESEK , ROBIN 553 PESEK LN GOLIAD TX 77963-3639

PETERS, KATHY
345 E FRANKLIN ST
GOLIAD TX 77963-4214

POWER, NORMAN PO BOX 253 GOLIAD TX 77963-0253 PRIMROSE, RONNIE 500 ATZENHOFFER RD YORKTOWN TX 78164-5414

QUILLIAN , JOANN 1444 RUTHERFORD LN GOLIAD TX 77963-3336 RADER, JIMMIE D PO BOX 665 GOLIAD TX 77963-0665 REAL, CATHY & MONTY 1938 FOX RD GOLIAD TX 77963-3356

REED, CYRUS CONSERVATION DIRECTOR SIERRA CLUB PO BOX 1931 AUSTIN TX 78767-1931 REED, CYRUS CONSERVATION DIRECTOR LONE STAR CHAPTER SIERRA CLUB 1202 SAN ANTONIO ST AUSTIN TX 78701-1834 REICHERT-GARZA , STEPHANIE 134 TILLEY LN VICTORIA TX 77905-3124

REITZ , DENNIS & IDA M PO BOX 126 WEESATCHE TX 77993-0126 REUTTER , FRANK 229 MAGUEY DR VICTORIA TX 77905-3115 REUTTER , JANE 229 MAGUEY DR VICTORIA TX 77905-3115

RHOTENBERRY , SAM 104 W REUSS BLVD CUERO TX 77954-3510 RICE , GEORGE 414 E FRENCH PL SAN ANTONIO TX 78212-3723 RIEBSCHLAEGER , ELIZABETH PO BOX 364 CUERO TX 77954-0364

RIEDESEL, GAIL & ROLAND G 312 STATE HIGHWAY 119 S YORKTOWN TX 78164 RIGGS , RANDY 3163 N 183 GOLIAD TX 77963 RITENOUR , KLAUS & TAMMY 27 NOLL RD MEYERSVILLE TX 77974-3970

ROESSLER , LAFERN & MELVIN 56 KATHY ST VICTORIA TX 77905-3641 ROSS , ERIC & SHARON 4466 E FM 1961 GOLIAD TX 77963-3441 ROSS , ERIC 4466 E FM 1961 GOLIAD TX 77963-3441 RUTHERFORD, MARGARET A 1256 BLUNTZER RD GOLIAD TX 77963-3403 SAGEBIEL, MR & MRS OBEL 10218 S US HIGHWAY 183 CUERO TX 77954-6558 SALYER, JEANETTE & MONTE 4595 FRANKE RD GOLIAD TX 77963-3618

SALYER , JIM PO BOX 3966 VICTORIA TX 77903-3966 SAMFORD , MONA 5222 KINGS HWY AUSTIN TX 78745-2862 SANCHEZ , VICENTE PO BOX 1353 GOLIAD TX 77963-1353

SAUERMILCH, WILBERT PO BOX 826 YORKTOWN TX 78164-0826 SAYLER, MONTE 4595 FRANKE RD GOLIAD TX 77963-3618 SCHEURICH , MRS MANFRED M PO BOX 102 NORDHEIM TX 78141-0102

SCHEURICH, VENICE COASTAL BEND SIERRA CLUB PO BOX 10101 CORPUS CHRISTI TX 78460-0101 SCHINDLER , MARK J PO BOX 50332 AUSTIN TX 78763-0332 SCHLEY , BONNIE 1945 GOLLY RD CUERO TX 77954-5717

SCHLEY , TRAVIS 240 E FM 1961 GOLIAD TX 77963-3363 SCHNEIDER , CATHERINE 354 CRESHAM DR SAN ANTONIO TX 78218-4219 SCHNEIDER , LEROY H 2437 ABRAMEIT RD GOLIAD TX 77963-3717

SCHOENHERR, ELIZABETH PO BOX 796 GOLIAD TX 77963-0796 SCHUSTEREIT , KENNETH D 275 BAASS LN VICTORIA TX 77905-3606 SCHUSTEREIT , MICHAEL 119 SABINE ST PORTLAND TX 78374-1453

SCOTT, DOUG 5415 E FM 1961 GOLIAD TX 77963-3652 SCOTT , JUDITH A 5415 E FM 1961 GOLIAD TX 77963-3652 SCOTT , KAREN 4791 STATE HIGHWAY 239 W GOLIAD TX 77963-3850

SEAL, RUSSELL SIERRA CLUB ALAMO GROUP 628 COUNTY ROAD 5711 ŁA COSTE TX 78039-2301 SEILER , PHIL 346 E FM 884 YORKTOWN TX 78164-5446 SHARP, BETTY 2181 DIEBEL RD WEESATCHE TX 77993

SHERMAN , JO & WILLIAM 140 SEA MIST DR ARANSAS PASS TX 78336-5805 SHERWOOD , ROBIN PO BOX 39 FANNIN TX 77960-0039 SIEVERS , BETTY 670 NOLL RD MEYERSVILLE TX 77974-3954

SIMMONS , DEE ANN 913 WHEELER LN GOLIAD TX 77963-3644 SIMMONS, WAYLAN A URAC 913 WHEELER LN GOLJAD TX 77963-3644 SISSON , LARRY 461 LASSMAN RD GOLJAD TX 77963-3774 SKIPPER, SHEILA DIANE 5811 E FM 1961 GOLIAD TX 77963-3444 SMITH , BARBARA
GOLIAD COUNTY GROUNDWATER CONS DIST
376 GOLIAD N

GOLIAD TX 77963-3446

SMITH, BARBARA PO BOX 562 GOLIAD TX 77963-0562

SMITH, MARGIE & WAYNE 4 LOS ROBLES RD YORKTOWN TX 78164-5184 SMITH, MARGIE 4 LOS ROBLES RD YORKTOWN TX 78164-5184 SMITH , SHIRLEY D 4167 POST OAK RD GOLIAD TX 77963-3324

SMITH, WAYNE 4 LOS ROBLES RD YORKTOWN TX 78164-5184 SMITH JR , WILLIAM G 38 MAIN ST WEESATCHE TX 77993 SONNEN , ED 4211 BUNKER HILL ST SAN ANTONIO TX 78230-1607

SPANN, DONNA & MIKE 1750 NOLL RD MEYERSVILLE TX 77974-3940 SPEARS, STEPHANIE Y 307 W BRAZOS ST VICTORIA TX 77901-5105 SPRINKLE, MARK
320 ELIOT RD
MEYERSVILLE TX 77974-3925

SPRINKLE, REBECCA 320 ELIOT RD MEYERSVILLE TX 77974-3925 SPRINKLE, RYAN 320 ELIOT RD MEYERSVILLE TX 77974-3925 STACY, ROBERT & ROSEMARY 1214 JANK LN GOLIAD TX 77963-3417

STANFORD, BERNICE 698 STANFORD LN VICTORIA TX 77905-3122 STANFORD , KELLY 414 CHERRY STONE CIR VICTORIA TX 77904-3076 STANFORD , R G 698 STANFORD LN VICTORIA TX 77905-3122

STANGE , CURTIS 2506 COLETOVILLE RD S VICTORIA TX 77905-3044 STOCKTON , ADA SUE 800 E JONES ST BEEVILLE TX 78102-2842 STOCKTON , BEN
PO BOX 144
WOODSBORO TX 78393-0144

STOCKTON, TOM E 1367 HALL RD GOLIAD TX 77963-3671 STOCKTON , VICTORIA A 1367 HALL RD GOLIAD TX 77963-3671 STRYKER, PAM & ROBERT 661 ABRAMEIT RD GOLIAD TX 77963-3676

STURM , ANNA GERALDINE 6694 DANFORTH RD GOLIAD TX 77963-3548 STURM , FRITZ 6694 DANFORTH RD GOLIAD TX 77963-3548 SUGGS , JUNELL 1483 E FM 884 YORKTOWN TX 78164-5448

SUTER, PAT

COASTAL BEND SIERRA CLUB

1002 CHAMBERLAIN ST

CORPUS CHRISTI TX 78404-2607

SUTER, PATRICIA H PRESIDENT & CHAIRMAN COASTAL BEND SIERRA CLUB PO BOX 3512 CORPUS CHRISTI TX 78463-3512 SWANSON , M C 2204 HUTCHINS LN EL CAMPO TX 77437-2110 SWANSON, MERRILL & REBECCA N 2204 HUTCHINS LN EL CAMPO TX 77437-2110

SWICKHEIMER, GEORGIA LEE PO BOX 217 FANNIN TX 77960-0217

VICTORIA TX 77904-9630

118 WEARDEN DR

THIEME, PATRICIA & ROLAND

THURK, CAROL 959 DOBSKYVILLE RD YORKTOWN TX 78164-1957 THURK, CAROL & DORIAN 959 DOBSKYVILLE RD YORKTOWN TX 78164-1957

TIBILETTI, JOE KTXN RADIO PO BOX 7286 VICTORIA TX 77903-7286

TOERCK, KATHY & RUDY 265 CHARCO ST GOLIAD TX 77963-3701

TOUREILLES, THE HONORABLE YVONNE GONZALES STATE REPRESENTATIVE TEXAS HOUSE OF REPRESENTATIVES PO BOX 2910 AUSTIN TX 78768-2910

TSAL, TIM #301 3815 GUADALUPE ST AUSTIN TX 78751-4900

TUTTLE, WANDA 401 JOSEPHINE RD VICTORIA TX 77905-3031 UNDERDOWN, WILLIAM R PO BOX 979 GOLIAD TX 77963-0979

VASQUEZ, LUIS 9629 N US HWY 59 FANNIN TX 77960

VAUGHN, SANDRA 120 BEECHWOOD DR VICTORIA TX 77901-4717

VILLALOBOS, MIGUEL A 9577 N US HWY 59 FANNIN TX 77960

VILLEGAS, KOURTNI 218 S BURKE ST GOLIAD TX 77963-4209

VILLEGAS, KRISTINA 218 S BURKE ST GOLIAD TX 77963-4209 VILLEGAS JR, LORETTO 218 S BURKE ST GOLIAD TX 77963-4209

VOGEL, MACKEY & ROMAN E 2750 AFFLERBACH RD YORKTOWN TX 78164-2103

VOGEL, ROMANE 2750 AFFLERBACH RD YORKTOWN TX 78164-2103 WALKER, DAVID PO BOX 1086 GOLIAD TX 77963-1086 WARD, MARTHA PO BOX 1101 YORKTOWN TX 78164-1101

WARD, MARTHA & ROY A PO BOX 1101 YORKTOWN TX 78164-1101

WARD, ROY PO BOX 1101 YORKTOWN TX 78164-1101 WARREN, CAROL 1235 HALLEMANN RD GOLIAD TX 77963-3309

WARREN, CAROL & DAVID P 1235 HALLEMANN RD GOLIAD TX 77963-3309

WARREN, MOBI 1826 POPPY PEAK ST SAN ANTONIO TX 78232-2418 WEST, CATHERINE PO BOX 371 GOLIAD TX 77963-0371

WHITWORTH, BOBBY PO BOX 596 BERCLAIR TX 78107-0596 WILD, KAY 12121 FM 240 WESTHOFF TX 77994-4131 WILDER, KELLI 422 SPRINGWOOD LN SAN ANTONIO TX 78216-6852 WILLIAMS , HENRIETTA RITA PO BOX 1023 GOLIAD TX 77963-1023 WILLIAMS, JAMES B
7821 IMPALA DR
CORPUS CHRISTI TX 78414-5933

WILLIAMS , MINA 141 NAPLES ST CORPUS CHRISTI TX 78404-1828

WUNSCH, GLORIA & THOMAS 1302 FM 622 VICTORIA TX 77905-3106 WUNSCH, LESLIE & TRACE 301 E SOUTH RAILROAD ST CUERO TX 77954-3031 YBARBO, DEBBIE 218 FANNIN ST GOLIAD TX 77963

YEARY, EMILY 1707 BEAUVOIR LN VICTORIA TX 77901-4281 YOUNG, JEAN FULLER 11163 ST HWY 239 W GOLIAD TX 77963-3826

### TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



AN ORDER Approving the Applications of Uranium Energy Corp for Issuance of a Class III Injection Well Permit No. UR03075, Aquifer Exemption Order, and Production Area Authorization No. 1 in Goliad County, Texas, TCEQ Docket Nos. 2008-1888-UIC and 2009-1319-UIC, SOAH Docket Nos. 582-09-3064 and 582-09-6184

On December 14, 2010 and February 23, 2011, the Texas Commission on Environmental Quality ("Commission" or "TCEQ") considered the applications of Uranium Energy Corp for a Class III Injection Well Permit No. UR03075, which includes a request for designation of an exempt aquifer ("Mine Application"), and for Production Area Authorization ("PAA") UR03075PAA1 ("PAA-1 Application"). The applications were presented to the Commission with a proposal for decision by the Honorable Richard Wilfong, Administrative Law Judge ("ALJ") with the State Office of Administrative Hearings ("SOAH").

After considering the ALJ's Proposal for Decision ("PFD") and the evidence and arguments presented, the Commission makes the following Findings of Fact and Conclusions of Law:

#### FINDINGS OF FACT

#### I. Introduction

- 1. The Applicant in this case is Uranium Energy Corp ("UEC"). UEC's business address is Suite 800N, 500 Shoreline Blvd., Corpus Christi, TX 78471.
- 2. The proposed facility is located approximately 13 miles north of the city of Goliad, about 0.9 miles east of the intersection of Highway 183 and Farm-to-Market Road 1961 in Goliad County, Texas.

- 3. UEC filed its Mine Application seeking Class III Underground Injection Control area permit, Permit No. UR03075 (the "Mine Permit").
- 4. UEC also filed its PAA-1 Application to authorize UEC to construct and operate Class III injection and production wells for the recovery of uranium in proposed Production Area 1 ("PA-1").
- 5. The applications, if approved, would set the conditions under which UEC would be permitted to conduct the in situ uranium mining.
- 6. The Executive Director ("ED") reviewed the Minc Application and PAA-1 Application (the "Applications") and concluded that the Applications meet all legal standards.
- 7. The ED prepared a draft Mine Permit, a draft Aquifer Exemption Order, and a draft PAA for the Commission's approval.
- 8. After the parties requesting denial ("Protestants") filed their protests, the Commission referred these disputed issues of fact ("Issues") to SOAH for a contested case hearing:
- A. Whether the use and installation of the injection wells are in the public interest under Tex. Water Code § 27.05 1(a). Public interest in regard to this issue includes whether UEC's mining operation or restoration activities will adversely impact the public interest by unreasonably reducing the amount of groundwater available for permitting by the Goliad County Groundwater Conservation District.
- B. Does the applicant's compliance history require denial of the application under Tex. WATER CODE § 27.05 1(e) and 30 Tex. ADMIN. CODE (TAC) Ch. 60?
- C. Does the application adequately and accurately describe baseline conditions of the groundwater in the proposed permitted area under applicable requirements of 30 TAC Ch. 331?
- D. Does the application meet all applicable criteria of 30 TAC § 331.122, related to required consideration by the Commission prior to issuing a Class III Injection Well Area Permit?
- E. Has the applicant demonstrated that the proposed exempted aquifer meets the applicable criteria of 30 TAC § 331.13?
- F. Is the application sufficiently protective of groundwater quality?
- G. Does the application adequately characterize and describe the geology and hydrology in the proposed permit area, including fault lines, under the applicable rules?
- H. Do the geologic and hydraulic properties of the proposed permit area indicate that the applicant will be able to comply with rule requirements?
- I. Does the applicant meet the applicable requirements for financial assurance under

- TEX. WATER CODE §§ 27.051 and 27.073, and 30 TAC Ch.37 and 331?
- J. Is the application sufficiently protective of surface water quality?
- K. Are local roadways sufficient to handle traffic to and from the proposed facility?
- L. Whether UEC's proposal for restoration of groundwater to baseline levels as contained in the permit application is reasonable and adequate?
- M. Will the applicant's proposed activities negatively impact livestock and wildlife, including endangered species?
- N. Will the applicant's proposed activities negatively impact the use of property?
- O. Will the applicant's proposed activities adversely affect public health and welfare?
- P. Whether the proposed mining is in the recharge zone of the Gulf Coast Aquifer (Evangeline component)?
- Q. Whether the Gulf Coast Aquifer is a confined aquifer in the areas of Goliad County where UEC will conduct UIC [underground injection control] activities?
- R. Whether mining fluids will migrate vertically or horizontally and contaminate an USDW [underground source of drinking water]?
- S. Whether there are any USDWs within the injection zones proposed by UEC?
- T. Whether any USDWs within Goliad County will be adversely impacted by UEC's proposed *in situ* uranium operations?
- U. Whether there is a practical, economic and feasible alternative to an injection well reasonably available within the meaning of that term as set forth in Tex. WATER CODE § 27.051(d)(2)?
- 9. In addition, the Commission referred UEC's PAA-1 Application directly to SOAH. The issue in that referral was whether the application complies with all applicable statutory and regulatory requirements.

#### II. Parties and Procedural History

- 10. On August 9, 2007, UEC filed its Mine Application.
- 11. On August 29, 2007, TCEQ declared the Mine Application to be administratively complete.
- 12. Following a technical review of the Mine Application, during which the ED requested and received additional information from UEC, the ED made a preliminary determination

- that the Mine Application meets all applicable statutory and regulatory requirements for issuance of a mine permit and aquifer exemption order.
- 13. The ED prepared UEC's compliance history and determined that UEC's compliance classification is average by default.
- 14. On January 24, 2008, the ED held a public meeting in Goliad to receive public comment regarding the Mine Application.
- 15. On June 4, 2008, the ED issued a draft Mine Permit and a draft Aquifer Exemption Order.
- 16. On September 4, 2008, UEC filed its PAA-1 Application with TCEQ.
- 17. On September 19, 2008, the ED made an official determination that the PAA-1 Application was administratively complete.
- 18. On October 31, 2008, the ED issued written responses to public comments regarding the Mine Application ("RTC Regarding Mine Application").
- 19. On February 25, 2009, TCEQ held an open meeting at which the Commissioners evaluated requests for a contested case hearing on the Mine Application (TCEQ Docket No. 2008-1888-UIC).
- 20. On March 3, 2009, TCEQ issued an Interim Order by which it:
- a) granted the requests for a contested case hearing filed by Goliad County (the "County"), Goliad County Groundwater Conservation District (the "District"), Ander-Weser Volunteer Fire Department, St. Peter's Lutheran Church, Mary and Tom Anklam, Raymond and Karon Arnold, Aldon and Brenda Bade, Mickey and Elizabeth Beard, Richard and Catherine Bettge, Otto and Ruth Bluntzer, Matt and Erika Bochat, Gene and Reta Brown, John and Pearl Caldwell, Lynn and Ginger Cook, Luann and Craig Duderstadt, Darwyn and Waynell Duderstadt, Wilburn and Doris Duderstadt, Douglas and Wanda Franke, Mary Kathryn Bluntzer Gray, Joel and Jana Grieser, Brenda Jo Hardt, Ernest and Frances Hausman, Gaylon and Barbara Kornfuehrer, Ted and Pam Long, Mr. and Mrs. Jason Mikeska, Ricki McKinney, Susan and Weldon Orr, Margaret Rutherford, Wayne and Margie Smith, and Dorian and Carol Thurk;
  - b) referred the matter to SOAH;
  - c) directed the ED to participate in the contested case hearing;
- d) established a one year maximum duration of the hearing from the first day of the preliminary hearing to the date the proposal for decision is issued by SOAH; and
  - e) referred the twenty-one Issues, which had been raised in public comments, to SOAH.
- 21. On May 14, 2009, the SOAH ALJ held a preliminary hearing in Goliad, Texas during which he admitted the following parties:

PARTY	REPRESENTATIVE
Uranium Energy Corp (Applicant)	Monica Jacobs, Attorney
The Executive Director of the Texas	
Commission on Environmental Quality	Shana Horton, Staff Attorney
Office of Public Interest Counsel	Garrett Arthur, Attorney
Goliad County	James B. Blackburn, Attorney
Goliad County Groundwater Conservation	
District	Rob Baiamonte, Attorney
Goliad County Farm Bureau, individually and	
as representative of specified entities and	
landowners who are aligned parties <sup>1</sup>	P.T. Calhoun, President
Raymond V. Carter, Jr., aligned with	Aligned Property Owners
Applicant	
Tom E. Stockton, aligned with Applicant	Aligned Property Owners
Mona Samford and brother, Sidney Braquet,	
aligned with Applicant	Aligned Property Owners

- 22. On May 27, 2009, by SOAH Order No. 2, and on May 28, 2009, by SOAH Order No. 3, the ALJ established a procedural schedule, and set a hearing on the merits to be commenced on January 4, 2010. The procedural schedule was later extended based on agreed or unopposed motions filed by the parties and granted by the ALJ pursuant to 30 TAC § 80.4(c)(17).
- 23. Following a technical review of the PAA-1 Application, during which the ED requested and received additional information from UEC, the ED made a preliminary determination that the PAA-1 Application meets all applicable statutory and regulatory requirements for issuance of a PAA.
- 24. On June 2, 2009, the ED issued a Technical Summary and ED's Preliminary Decision.
- 25. On June 9, 2009, the ED issued a draft PAA.
- On August 14, 2009, UEC filed a request for the direct referral of the PAA-1 Application to SOAH for a contested case hearing pursuant to 30 TAC § 55.210.
- 27. On August 18, 2009, UEC filed an Unopposed Motion to Abate Procedural Schedule for Purposes of Consolidating Production Area Authorization.

<sup>&</sup>lt;sup>1</sup> Those entities and landowners are: Ander-Weser Volunteer Fire Department, St. Peter's Lutheran Church, Mary and Tom Anklam, Raymond and Karon Arnold, Aldon and Brenda Bade, Mickey and Elizabeth Beard, Richard and Catherine Bettge, Otto and Ruth Bluntzer, Matt and Erika Bochat, Gene and Reta Brown, John and Pearl Caldwell, Lynn and Ginger Cook, Luann and Craig Duderstadt, Darwyn and Waynell Duderstadt, Wilburn and Doris Duderstadt, Douglas and Wanda Franke, Mary Kathryn Bluntzer Gray, Joel and Jana Grieser, Brenda Jo Hardt, Ernest and Frances Hausman, Gaylon and Barbara Kornfuehrer, Ted and Pain Long, Mr. and Mrs. Jason Mikeska, Ricki McKinney, Susan and Weldon Orr, Margaret Rutherford, Wayne and Margie Smith, and Dorian and Carol Thurk.

- 28. On August 24, 2009, by SOAH Order No. 4, the ALJ abated the procedural schedule and adopted a revised schedule.
- 29. On September 11, 2009, by SOAH Order No. 5, the ALJ confirmed the location for hearing on the merits.
- 30. On September 29, 2009, by SOAH Order No. 6, the ALJ ordered a portion of the hearing to be held in Goliad, Texas.
- 31. On September 29, 2009, UEC filed an Agreed Motion to Consolidate for Purposes of Hearing its PAA-1 Application with its Mine Application (the "Motion to Consolidate").
- 32. On October 5, 2009, the ED held a public meeting in Goliad to receive public comment regarding the PAA-1 Application.
- 33. On October 6, 2009, SOAH held a preliminary hearing in Goliad, Texas and designated parties.
- 34. On October 8, 2009, the ALJ issued SOAH Order No. 7, by which he granted the Motion to Consolidate.
- 35. On October 26, 2009, UEC filed an unopposed motion to abate this proceeding to allow it to make minor amendments to its Mine Application and PAA-1 Application. On October 26, 2009, the ALJ issued SOAH Order No. 8, by which he granted the abatement.
- 36. On November 6, 2009, UEC filed amendments to its Mine Application and its PAA-1 Application to reflect changes to its plans for the uranium processing facility. The amendments reflect that the final stages of uranium recovery would occur at an off-site location, rather than at the proposed Goliad facility. These amendments result in a smaller footprint of the Goliad processing facility.
- 37. By a Joint Status Report filed on December 15, 2009, the parties proposed a date of May 3, 2010, for the hearing on the merits and proposed a procedural schedule leading up to that hearing date.
- 38. On December 18, 2009, the ALJ issued SOAH Order No. 9, by which he set the hearing on the merits for May 3, 2010, and established a procedural schedule as proposed by the parties. The parties also reached an agreement regarding the location of the hearing.
- 39. On January 20, 2010, the ALJ issued SOAH Order No. 10, which in accordance with the parties' agreement provided that if the hearing on the merits continued into a second week (*i.e.*, into the week of May 10<sup>th</sup>), that portion of the hearing would be held in Goliad.
- 40. On January 28, 2010, the ED issued written responses to public comments regarding the PAA-1 Application ("RTC Regarding PAA-1 Application").
- 41. On April 30, 2010, the ALJ held a prehearing conference.

- 42. The hearing on the merits was conducted by ALJ Richard Wilfong on May 3 through 11, 2010. From May 3 through May 7, 2010, the hearing was held in Austin, Texas at the State Office of Administrative Hearings, William Clements State Office Building, 4th Floor. On May 10 and 11, the hearing was held in Goliad County at the Goliad County Courtroom, 127 North Courthouse Square, Goliad, Texas 77963.
- 43. The Parties and their representatives who participated in the hearing of this case were:<sup>2</sup>

PARTY	REPRESENTATIVE
UEC	Monica Jacobs and Diana Nichols, Attorneys, Austin, Texas
ED	Shana Horton, Staff Attorney, TCEQ
Office of Public Interest Counsel ("OPIC")	Garrett Arthur, Attorney
Goliad County	James B. Blackburn and Adam M. Friedman, Attorneys, Houston, Texas
Goliad County Groundwater Conservation	
District	Rob Baiamonte, Attorney, Goliad, Texas

- 44. The Parties filed Closing Argument Briefs on July 9, 2010.
- 45. The Parties filed Replies to Closing Argument Briefs on July 30, 2010, and the record closed.

#### III. Notice and Jurisdiction

- 46. Notice of Receipt of Application and Intent to Obtain a New Underground Injection Control Permit was mailed to the application mailing list on September 5, 2007, and was published in the *Victoria Advocate* on September 19, 2007 and the *Texan Express* on September 26, 2007.
- 47. Notice of Application and Preliminary Decision for Class III Injection Well, including notice of the request for designation of an exempt aquifer, was mailed to the application mailing list on June 17, 2008 and was published in the *Victoria Advocate* on June 20, 2008 and the *Texan Express* on June 25, 2008.
- 48. Notice of Receipt of Application and Intent to Obtain a New Production Area Authorization (PAA) was mailed to the application mailing list on September 26, 2008 and

<sup>&</sup>lt;sup>2</sup> These persons were designated as parties but did not participate in the hearing: Raymond V. Carter, Tom E. Stockton, Mona Samford and Sidney Braquet, aligned with UEC; and Goliad County Farm Bureau, individually and as representative of the following aligned protestant entities and land owners: Ander-Weser Volunteer Fire Department, Mary and Tom Anklam, Raymond and Karon Arnold, Aldon and Brenda Bade, Mickey and Elizabeth Beard, Richard and Catherine Bettge, Otto and Ruth Bluntzer, Matt and Erika Bochat, Gene and Reta Brown, John and Pearl Caldwell, Lynn and Ginger Cook, Luann and Craig Duderstadt, Darwyn and Waynell Duderstadt, Wilburn and Doris Duderstadt, Douglas and Wanda Franke, Mary Kathryn Bluntzer Gray, Joel and Jana Grieser, Brenda Jo Hardt, Ernest and Frances Hausman, Gaylon and Barbara Kornfuehrer, Ted and Pam Long, Ricki McKinney, Mr. and Mrs. Jason Mikeska, Susan and Weldon Orr, Margaret Rutherford, Wayne and Margie Smith, St. Peter's Lutheran Church, and Dorian and Carol Thurk.

- published in the *Victoria Advocate* on September 26, 2008 and the *Texan Express* on October 1, 2008.
- 49. The Amended Notice of Hearing on the Class III area application and the request for designation of an exempt aquifer was mailed to the application mailing list and applicant contacts on April 3, 2009. The Amended Notice of Hearing was mailed to the adjacent and permit area landowners on April 7, 2009, as required by 30 TAC § 39.651(f). The Amended Notice of Hearing was published in the *Victoria Advocate* in Victoria County on April 7, 2009; *The Countywide* in Karnes County, *Texan Express* in Goliad County, *Cuero Record/Yorktown News-View* in DeWitt County, and *Beeville Bee-Picayune* in Bee County on April 8, 2009; and The *Refugio County Press* in Refugio County on April 9, 2009.
- 50. On May 14, 2009, the ALJ held a preliminary hearing in Goliad, Texas during which he established jurisdiction over the Mine Application.
- 51. Revised Notice of Application and Preliminary Decision for New Production Area Authorization was mailed to the application mailing list on June 18, 2009 and published in the *Victoria Advocate* on June 23, 2009 and the *Texan Express* on June 24, 2009.
- 52. On October 6, 2009, SOAH held a preliminary hearing in Goliad, Texas and established jurisdiction over the PAA-1 Application.
- 53. All public notices were in proper form and given to the required notice recipients in the required manner.

#### IV. Background

54. Before beginning operations, a mine operator must receive an underground injection permit to establish a mine, an aquifer exemption to conduct mining activities within an aquifer, and at least one PAA, which is an administrative designation of a production area within the boundary of the approved mining area.

#### Mine Permit

- 55. The Mine Permit authorizes UEC to construct and operate Class III injection and production wells for recovery of uranium from a certain portion of the Goliad Formation.
- 56. The area within the boundary of the proposed Mine Permit is approximately 1,139.4 contiguous acres, including a 100-foot buffer zone (the "Mine Permit Area").

#### Aguifer Exemption

- 57. The Mine Application includes a request for an aquifer exemption.
- 58. An exempted aquifer is an aquifer or a portion of an aquifer which meets the criteria for fresh water but which has been designated an exempted aquifer by the Commission after notice and opportunity for public hearing. The Commission's administrative order

- designating the aquifer exemption requested in the Mine Application ("Aquifer Exemption Order") is attached as Exhibit B.
- 59. The requested aquifer exemption covers approximately 423.8 acres within the larger Mine Permit Area and applies from a depth of 45 to 404 feet within the Goliad Formation (the "Aquifer Exemption Area").

### PAA Application

- 60. UEC also filed its PAA-1 Application to authorize UEC to construct and operate Class III injection and production wells for the recovery of uranium in proposed PA-1 within the Mine Permit Area.
- 61. The requested PAA is issued under the terms of the proposed Mine Permit. The area within the boundary of proposed PA-1 is approximately 36.1 acres within a 94.2-acre mine area in the southern portion of the proposed Mine Permit Area.
- 62. The draft PAA includes: a mine plan with estimated schedules for mining and aquifer restoration, a baseline water quality table, a restoration table, control parameter upper limits, monitor well locations, and cost estimates for aquifer restoration and well plugging and abandonment.

#### V. Issues Referred to SOAH Regarding the Mine Application

- A. Whether the use and installation of the injection wells are in the public interest under Texas Water Code §27.051(a). Public interest in regard to this issue includes whether UEC's mining operation or restoration activities will adversely impact the public interest by unreasonably reducing the amount of groundwater available for permitting by the Goliad County Groundwater Conservation District.
- 63. UEC's proposed installation and use of Class III injection wells for in situ mining of uranium are in the public interest, in accordance with the criteria in Tex. WATER CODE § 27.051(a).
- 64. Uranium, in contrast with oil and gas, is a very scarce natural resource that exists in commercially mineable concentrations in only a few areas of the United States, including Goliad County, Texas.
- 65. It is in the public interest for this natural resource to be produced to meet the energy needs of the United States, and for the mineral owners to realize the economic benefits of uranium production on their property.
- 66. A review of the ED's RTC Regarding Mine Application shows that the ED considered a wide range of issues regarding public interest, including: economic impacts and quality of life, health and welfare, groundwater quality, geology/hydrology of the aquifer, monitoring, control of migration of mining fluids, aquifer restoration, financial assurance, and compliance history.

- 67. The ED undertook a balancing approach and considered potential negative impacts in making a determination of public interest.
- 68. The ED also reviewed the Mine Application to ensure that UEC would meet all regulatory requirements.
- 69. UEC's projected water consumption is between 133 and 206 acre-feet per year.
- 70. The District's Management Plan anticipated the need to plan for groundwater usage for uranium mining purposes. The Plan projects 800 acre-feet per year of groundwater usage for such purposes, which is almost four times the amount that UEC projects it will use on an annual basis.
- 71. UEC's estimated water use over the life of the project and projected maximum monthly water use are also projected to fall within the limits of the District's current water usage rule.
- 72. UEC's mining operation and restoration activities will not unreasonably reduce the amount of groundwater available for permitting by the District.
- 73. UEC's compliance history does not show that granting the Mine Application would be against the public interest. The findings set forth in Section V.B below are incorporated by reference herein.
- 74. UEC's ability to meet applicable financial assurance requirements does not show that granting the Mine Application would be against the public interest. The findings set forth in Section V.I below are incorporated by reference herein.
- 75. UEC's restoration proposal and past groundwater restoration efforts by other operators do not show that granting the Mine Application would be against the public interest. The findings set forth in Section V.L below are incorporated by reference herein.
- 76. There is no practical, economic and feasible alternative to an injection well reasonably available within the meaning of that term as set forth in Tex. WATER CODE § 27.051(d)(2). The findings set forth in Section V.U below are incorporated by reference herein.
- B. Does the Applicant's compliance history require denial of the application under Tex. Water Code § 27.051(e) and 30 TAC Chapter 60?
- 77. The ED prepared a compliance history summary in accordance with Tex. Water Code § 27.051(e) and 30 TAC Chapter 60.
- 78. In the compliance history summary, UEC received a rating of 3.01, which is an average classification by default since UEC has no history of operations in Texas.

- C. Does the application adequately and accurately describe baseline conditions of the groundwater in the proposed permitted area under applicable requirements of 30 TAC Chapter 331?
- 79. Local water quality was established by sampling all existing wells within the Mine Permit Area and by sampling nearly all the existing wells within 1 kilometer of the permit area boundary. In addition, UEC completed and sampled 20 baseline wells.
- 80. The locations of the 20 baseline wells largely correspond to the area where UEC anticipates mining (*i.e.*, areas of high uranium mineralization).
- 81. The Mine Application contains the water quality results for the 20 baseline wells and the 47 area wells located inside the permit area boundary or within 1 kilometer of the permit area boundary.
- 82. Groundwater quality data from the 20 baseline wells is remarkably similar to the data from the 47 wells for all constituents with the exception of uranium and radium-226, which are significantly higher in the baseline wells.
- D. Does the application meet all applicable criteria of 30 TAC § 331.122, related to required consideration by the Commission prior to issuing a Class III Injection Well Area Permit?
- 83. UEC described the list of the items that the Commission is required to consider in its administrative and technical review under 30 TAC § 331.122 before issuing an area permit, as well as the location of each such item in the Mine Application.
- 84. UEC submitted all of the data and each of the items for the applicable criteria listed in 30 TAC § 331.122, and the Commission considered each of these items.
- E. Has the Applicant demonstrated that the proposed exempted aquifer meets the applicable criteria of 30 TAC § 331.13?
- 85. There are no water wells that are used for human consumption within the proposed Aquifer Exemption Area.
- 86. UEC demonstrated that the area of the exempted aquifer is uranium-bearing with production capability.
- 87. In addition, the groundwater in the proposed exempted aquifer is contaminated due to the uranium mineralization such that it would be economically or technologically impractical to render the water fit for human consumption.
- 88. The proposed aquifer exemption area was properly delineated.

#### F. Is the application sufficiently protective of groundwater quality?

89. In accordance with 30 TAC § 331.102, UEC is or will be required to:

- Identify existing wells that could serve as a conduit for mining solutions to move outside the production zone or the production area (30 TAC § 331.42);
- Construct wells in accordance with construction requirements (30 TAC § 331.82);
- Maintain mechanical integrity of all Class III wells (30 TAC § 331.4);
- Implement corrective action standards to prevent or correct pollution of a USDW (30 TAC § 331.44);
- Obtain ED approval of construction and completion of wells (30 TAC § 331.45);
- Operate wells in accordance with operation requirements (30 TAC § 331.83);
- Monitor wells in accordance with monitoring requirements (30 TAC § 331.84);
- Submit reports in accordance with reporting requirements (30 TAC § 331.85); and
- Close wells in accordance with a plugging and abandonment plan in a manner which will not allow the movement of fluids through the well, out of the injection zone, or to the land surface (30 TAC §§ 331.46 and 331.86).
- 90. The geologic and hydraulic properties of the Mine Permit Area indicate that UEC will be able to comply with rule requirements. The findings stated under Section V.H below are incorporated by reference herein.
- 91. Data in the Mine Application shows that mining fluids will not migrate vertically or horizontally and contaminate an USDW (underground source of drinking water). The findings stated under Section V.R below are incorporated by reference herein.
- 92. UEC's proposal for restoration of groundwater to baseline levels as contained in the Mine Application is reasonable and adequate. The findings stated under Section V.L below are incorporated by reference herein.
- 93. The Mine Application is sufficiently protective of groundwater quality.
- G. Does the application adequately characterize and describe the geology and hydrology in the proposed permit area, including fault lines, under the applicable rules?
- 94. The application adequately characterizes and describes the geology and hydrology in the Mine Permit Area, including fault lines, under the applicable rules.
- 95. The Mine Application contains: a narrative description of the hydrology in the proposed Mine Permit Area; a narrative description of the geology in the proposed Mine Permit Area; permit-area cross sections (and a cross section index map); structure and isopach

- maps for each of the four sands (Sands A-D); and potentiometric surface maps—both within each sand and for the region—that show the direction of groundwater flow.
- 96. UEC presented a wealth of information about the geology and hydrology of the area, including the areas within and surrounding the proposed Mine Permit Area.
- 97. Two faults exist within the proposed Mine Permit Area: the Northwest Fault and the Southeast Fault.
- 98. The Northwest Fault is the larger of the two and runs along the northwest portion of the proposed Mine Permit Area, near the perimeter of proposed production areas A and C and very near the perimeter of proposed production area D.
- 99. Further characterization of the Northwest Fault is not required for the Mine Permit. Where applicable, future PAA applications will include the results of hydrologic testing and an interpretation of those results with respect to any faults to determine the hydrologic connection both across the fault and vertically along the fault.
- 100. The Southeast Fault transects only a small part of the southeast corner of the proposed Mine Permit Area and touches none of the proposed production areas.
- 101. The Mine Application accurately and adequately describes all faults in the proposed Mine Permit Area.
- 102. The Mine Application meets all applicable criteria of 30 TAC § 331.122, related to required consideration by the Commission prior to issuing a Class III Injection Well Area Permit. The findings set forth in Section V.D above are incorporated by reference herein.

# H. Do the geologic and hydraulic properties of the proposed permit area indicate that the Applicant will be able to comply with rule requirements?

- 103. The geologic and hydraulic properties of the proposed Mine Permit Area indicate that UEC will be able to comply with rule requirements.
- 104. Sands B, C and D in the Mine Permit Area are confined aquifers. They are saturated with groundwater.
- 105. Sand A in the Mine Permit Area is hydraulically unconfined, but still isolated from the deeper sands by a low permeability confining layer throughout the Mine Permit Area.
- 106. Throughout the Mine Permit Area, each of the sands (Sands A—D) is separated from one another by continuous confining layers consisting largely of low permeability clay.
- 107. These confining layers average between thirty and forty-five feet in thickness in the Mine Permit Area.
- 108. For the most part, the hydraulic gradient within the Mine Permit Area is relatively flat, resulting in a slow rate of groundwater flow.

- 109. Regionally, the direction of groundwater flow is typical of coastal plain aquifers, that is, coastward. Thus, groundwater flow in the Mine Permit Area is generally to the southeast.
- 110. Mining fluids will not migrate vertically or horizontally and contaminate an USDW (underground source of drinking water). The findings set forth and/or incorporated by reference in Section V.R below are incorporated by reference herein.

### I. Does the Applicant meet the applicable requirements for financial assurance under Texas Water Code §§ 27.051, 27.073, and 30 TAC Chapters 37 and 331?

- 111. UEC presented evidence showing its compliance with the detailed specifications and requirements about financial assurance that are prescribed by the TCEQ rules.
- 112. UEC's application does not lack specificity regarding the form and quality of financial assurance.
- 113. UEC meets the applicable requirements for financial assurance under Texas Water Code §§ 27.051, 27.073, and 30 TAC Chapters 37 and 331.
- 114. The Mine Application sets out a total preliminary estimated cost for the plugging of the wells in the four planned production areas. The estimate was derived by multiplying the total estimated footage for all wells by a cost per foot that reflects all costs, *i.e.*, labor, equipment, per diem, and materials, and specifies that the plugging material will be cement.
- 115. The Mine Application contains a description of the plugging method—cementing from bottom to top—that will be used to ensure that there will be no movement of fluid through the wells after abandonment, and a description of the restoration process that will ensure that no movement of contaminants will move from the production zone into a USDW.
- 116. The Mine Application contains a commitment that UEC will follow the requirements of 30 TAC § 331.86 in plugging the wells.
- 117. The ED reviewed the submitted cost estimates and determined that the coverage will be sufficient for the financial assurance that must be submitted after the permits and licenses are issued.

#### J. Is the application sufficiently protective of surface water quality?

- 118. Class III area permit applications address protection of surface water only in a general sense. The specific regulatory requirements for containment of surface fluids are included in a radioactive material license ("RML"). An in situ uranium mine operator is required to have a RML.
- 119. UEC's Mine Application contains operational measures to comply with the Draft Mine Permit's prohibition against discharge of fluids into surface waters.

- 120. No impacts to wetlands are anticipated as a result of UEC's proposed operations.
- 121. The Mine Application describes design features related to the management of flooding and runoff. These features will prevent and/or minimize contact of mining fluids with the ground surface.
- 122. With proper construction practices, mining activities will not impact the quality of runoff caused by flooding.
- 123. Accidental spills at the plant, in the field, and at the Class I waste disposal well areas will be minimized by automated monitoring equipment, daily visual inspections and reporting, and by UEC's corrective action program.
- 124. UEC has adopted Operating, Safety and Emergency Procedures that establishes safety protocols for transporting shipments, including shipments of loaded resin or solid byproduct waste. It also establishes emergency response protocols to be implemented in the event of an accident.
- 125. Any concerns regarding possible migration of constituents from a production area in Sand A to Fifteen Mile Creek can be appropriately addressed in connection with the PAA application process for Sand A.
- 126. The Mine Application is sufficiently protective of surface water quality.

#### K. Are local roadways sufficient to handle traffic to and from the proposed facility?

- 127. Local roadways are sufficient to handle traffic to and from the proposed facility.
- 128. UEC's site access plan provides that UEC will construct a new road so that the main entrance to the proposed site will be directly onto US Highway 183.
- 129. US Highway 183 is designed for higher volume traffic and larger vehicles than local county roadways.
- 130. The local roadways will not be adversely affected by the traffic created by the proposed in situ uranium mining operation.

# L. Whether UEC's proposal for restoration of groundwater to baseline levels as contained in the permit application is reasonable and adequate.

- 131. UEC's proposal for restoration of groundwater to baseline levels as contained in the Mine Application is reasonable and adequate.
- 132. The Mine Application contains a description of UEC's proposed restoration procedures, plans for a restoration demonstration and report to TCEQ regarding the demonstration.

- 133. UEC's restoration proposal incorporates improvements as compared to past restoration efforts in Texas. These include: 1) the use of reverse osmosis on a commercial scale during mining to provide a jump start on restoration; 2) the initiation of restoration as soon as mining ends in a production area; and 3) the continued use of the ion exchange (IX) columns to remove residual uranium during restoration instead of only during mining.
- 134. In addition, UEC's restoration efforts will benefit from technological advancements. The membranes that are used in the reverse osmosis process are now specifically designed to function with a longer life span and higher performance in the particular water quality in which they will be used.
- 135. Even though no restoration model is required, UEC does have a state-of-the-art hydrogeological model that it can use to increase its restoration success in its first production area.
- 136. Within 18 months after initiation of mining in the first production area (PA-1), UEC will conduct a restoration demonstration. If the results of that demonstration indicate the assumed number of pore volumes required for aquifer restoration is inadequate, the ED will require the amount of financial assurance for aquifer restoration to be adjusted accordingly.
- 137. Specific requirements for restoration of groundwater after the completion of mining are addressed in PAAs rather than in Class III injection well area permits.

# M. Will the Applicant's proposed activities negatively impact livestock and wildlife, including endangered species?

- 138. The proposed uranium mining activities will not negatively impact livestock and wildlife, including endangered species.
- 139. If there is no contamination of the air, soil, surface water, or groundwater outside the production area, then animals are not impacted. The Mine Application complies with the rules designed to eliminate these possible pathways for contamination of animals.
- 140. The Mine Application is sufficiently protective of surface water quality. The findings of fact set forth and/or incorporated by reference in Section V.J above are incorporated by reference herein.
- 141. Groundwater is adequately protected from pollution. The findings set forth in and/or incorporated by reference into Sections V.F, V.H., and V.L above and Section V.R below are incorporated by reference herein.
- 142. UEC has adopted an Operational Monitoring Program, which is set forth in its RML Application. Pursuant to the RML, UEC will be required to conduct regular sampling of air, vegetation (including a grazing crop), soil, sediment, surface water and groundwater at pre-determined locations on a quarterly and annual basis throughout its operations.

This monitoring will enable UEC to detect any potential breach of the controls required by the RML.

#### N. Will the Applicant's proposed activities negatively impact the use of property?

- 143. UEC's proposed activities will not negatively impact the use of property.
- 144. Existing land uses adjacent to the Mine Permit Area include low density, scattered rural residential, cattle ranching, cropland, and oil and gas production.
- 145. UEC has demonstrated its compliance with the TCEQ regulatory scheme governing in situ uranium mining. Fresh water and air are adequately and sufficiently protected from pollution, soil and vegetation are adequately and sufficiently protected from contamination, and UEC's proposed activities will not negatively impact livestock and wildlife, including endangered species. The findings set forth in Sections V.F, V.H., V.J., V.L, V.M above and in Section V.R below are incorporated by reference herein.
- 146. The proposed mining operations and restoration activities will not adversely impact the public interest by unreasonably reducing the amount of groundwater available for permitting by the District. The findings set forth in Section V.A above are incorporated by reference herein.

#### O. Will the Applicant's proposed activities adversely affect public health and welfare?

- 147. UEC's proposed activities will not adversely affect public health and welfare.
- 148. UEC's proposed installation and use of Class III injection wells for in situ mining of uranium are in the public interest, in accordance with the criteria in Tex. Water Code § 27.051(a). The findings set forth in Section V.A above are incorporated by reference herein.
- 149. Fresh water and air are adequately and sufficiently protected from pollution; soil and vegetation are adequately and sufficiently protected from contamination; and UEC's proposed activities will not negatively impact livestock and wildlife, including endangered species. The findings set forth in Sections V.F, V.H., V.J., V.L, V.M above and in Section V.R below are incorporated by reference herein.
- 150. Local roadways are sufficient to handle traffic to and from the proposed facility. The findings set forth in Section V.K above are incorporated by reference herein.

# P. Whether the proposed mining is in the recharge zone of the Gulf Coast Aquifer (Evangeline component).

151. The proposed mining is not in the recharge zone of the Gulf Coast Aquifer (Evangeline component).

- Q. Whether the Gulf Coast Aquifer is a confined aquifer in the areas of Goliad County where UEC will conduct UIC activities.
- 152. Sands B, C and D in the Mine Permit Area are confined aquifers.
- 153. Sand A in the Mine Permit Area is hydraulically unconfined, but still isolated from the deeper sands by a low permeability layer throughout the Mine Permit Area and thus confined in a geologic sense.
- R. Whether mining fluids will migrate vertically or horizontally and contaminate an USDW (underground source of drinking water).

#### General

- 154. Data in the Mine Application shows that mining fluids will not migrate vertically or horizontally and contaminate an USDW (underground source of drinking water).
- 155. UEC's proposed methods of confinement have long been supported by the ED and accepted by the Commission.
- 156. TCEQ rules require the confinement of mining solutions and monitor wells in and above the production zone.
- 157. The use of a bleed is well-established as a method of confining mining fluids in a production area. The mine will be monitored carefully by UEC and will be subject to scrutiny by the ED during the initial phases of its development.
- 158. The geologic and hydraulic properties of the proposed Mine Permit Area indicate that UEC will be able to comply with rule requirements. The findings of fact set forth in Section V.H above are incorporated by reference herein.
- 159. PA-1 is not involved with the Northwest Fault. Prior to commencing mining operations near the Northwest Fault, UEC will have to apply for, and the Commission will have to issue a production area authorization for at least one of the other proposed production areas. To obtain such a PAA, UEC will have to design and conduct a hydrologic testing program for the production area in which it seeks authorization to mine and submit the results of such hydrologic testing as a part of its PAA application. The PAA application will also include an interpretation of those results with respect to any faults to determine the hydrologic connection both across the fault and vertically along the fault.
- 160. The Southeast Fault is located well outside the proposed Aquifer Exemption Area and over 1,500 feet downgradient from the closest proposed production area, which is PA-1.

#### Horizontal Containment

161. Maintaining a cone of depression during mining operations prevents the horizontal migration of mining fluids.

- 162. Water levels in monitor wells are monitored regularly and pumping is adjusted where and when needed to provide horizontal confinement.
- 163. UEC's proposal for restoration of groundwater to baseline levels as contained in the permit application is reasonable and adequate. The findings of fact set forth and/or incorporated by reference in Section VI.L above are incorporated by reference herein.

### Vertical Containment

## Clay Confining Layers

164. The findings of fact set forth in Sections V.H and V.Q above (regarding confinement and confining layers) are incorporated by reference herein.

#### Boreholes

- 165. Boreholes will not serve as a conduit for vertical migration.
- 166. All exploration boreholes drilled by UEC were plugged with cement from total depth to at least 3 feet below ground surface and no closer than 1.5 feet from the surface. The remainder of the hole between the top of the plug and the surface was filled with cuttings or non-toxic soil.
- 167. In the early 1980s, Moore Energy Corporation ("Moore Energy") drilled about 487 boreholes throughout its entire exploratory permit area, which covered 17,635 square acres of land surface (some of which overlaps with UEC's exploratory permit area, but much of which does not).
- 168. Only three of the boreholes drilled by Moore Energy were logged before May 7, 1982 (the effective date of the Texas Railroad Commission's ("TRC") plugging regulation in effect at the time of the contested case hearing). All of the other boreholes were logged after March 15, 1983, and were likely drilled shortly before that. Thus, assuming compliance with the TRC's plugging regulation, these boreholes were plugged in a manner that prevented the mixing of water from different sand units within the hole.
- 169. Even if not plugged in accordance with the TRC's plugging regulation in effect at the time of the contested case hearing, the Moore Energy boreholes would not serve as conduits for vertical migration.
  - a. At a minimum, the drilling mud would have been left in the boreholes.
  - b. Uncased boreholes will typically collapse, and the thick sequence of clays will move across the borehole, further sealing and preventing migration. Even a few centimeters of clay will substantially retard fluid movement.
  - c. Even in the absence of clay from a collapsed borehole wall, drilling mud in a borehole, in and of itself, constitutes a significant barrier to groundwater flow, particularly after it has been allowed to gel for a time.

- S. Whether there are any USDWs within the injection zones proposed by UEC.
- 170. There are USDWs within the injection zones proposed by UEC.
- 171. Each of the four proposed production zones is a USDW.
- T. Whether any USDWs within Goliad County will be adversely impacted by UEC's proposed in situ uranium operations.
- 172. Data in the Mine Application shows that USDWs within Goliad County will not be adversely impacted by UEC's proposed in situ uranium operations.
- 173. The geologic and hydraulic properties of the proposed permit area indicate that the Applicant will be able to comply with rule requirements. The findings set forth in Section V.H above are incorporated by reference herein.
- 174. Mining fluids will not migrate vertically or horizontally and contaminate an USDW (underground source of drinking water). The findings set forth in Section V.R above are incorporated by reference herein.
- 175. UEC's proposal for restoration of groundwater to baseline levels as contained in the Mine Application is reasonable and adequate. The findings set forth in Section V.L above are incorporated by reference herein.
- U. Whether there is a "practical, economic and feasible alternative to an injection well reasonably available" within the meaning of that term as set forth in TWC § 27.051(d)(2).
- 176. There are no practical, economic and feasible alternatives to the use of injection wells for uranium mining in the Mine Permit Area.
- 177. The available alternative methods for recovering uranium are underground and open pit (surface) mining, both of which involve de-watering the production zone sands, removing huge quantities of surface and subsurface material (*i.e.*, the overburden), and creating substantial amounts of solid waste (*i.e.*, tailings).
- 178. The in situ mining process is a more environmentally-protective means of uranium mining. As compared to the available alternatives, in situ uranium mining greatly minimizes physical damage to the land and subsurface and results in much less solid waste.

### VI. PAA-1 Application

### A. Mine Plan

179. UEC submitted an updated mine plan as part of its PAA-1 Application. The draft PAA, UR03075PAA1 (PAA1), includes the updated mine plan.

- 180. The updated mine plan includes a map of the proposed production areas and an updated estimated schedule for production and restoration.
- 181. According to UEC's mine plan, UEC will begin restoration operations in PA-1 promptly after mining.

#### B. Restoration Table

182. UEC's proposed restoration table for PA-1 is contained in the PAA-1 Application and in the draft PAA, UR03075PAA1 (PAA1), as Attachment 6.

### Parameters

- 183. UEC's proposed restoration table includes all parameters in the suite established in accordance with the requirements of 30 TAC § 331.104(b).
  - a. UEC requested that ammonia, cadmium, lead and mercury be excluded from the restoration table.
  - b. Ammonia, cadmium, lead and mercury are not suitable restoration parameters because (1) they do not occur in the production zone; (2) these elements are not included in the proposed injection solution; (3) they are not subject to being dissolved by mining solutions (because they are not in the production zone), and (4) extensive water quality sampling indicates that these elements are not in the aquifer in general.

### Values

- 184. TCEQ's application form instructs applicants to base the restoration table on the required groundwater analysis report summary. The format of the groundwater analysis report summary is dictated by Figure 3, which is attached to the application form.
- 185. The values in UEC's restoration table included in its PAA-1 Application consist of the column headed production area average for parameters shown on the production area baseline water quality table, which is included in the draft PAA as Attachment 4A.
- 186. The values in UEC's restoration table included in its PAA-1 Application were derived from groundwater samples collected at the eighteen baseline wells for PA-1, consisting of PTW-1 through PTW-14 and RBL Wells 1, 3, 4 and 5.
- 187. When UEC sampled PTWs 7-14, the PAA-1 Application was still in the technical review phase.
- 188. The restoration values in UEC's restoration table included in its PAA-1 Application are the mean concentration or value for each parameter based on all measurements from groundwater samples collected from baseline wells at the time that the draft PAA was issued. After issuance of the draft PAA, UEC took and analyzed additional groundwater samples (referred to as rounds 2 and 3) from its baseline wells in PA-1.

189. The restoration values in the restoration table attached hereto as Attachment 6 in Exhibit D are the mean concentration or value for each parameter based on all measurements from groundwater samples collected from the PA-1 baseline wells, including (a) those collected at the time that the draft PAA was issued and (b) those collected in rounds 2 and 3.

#### C. Baseline Table

- 190. UEC's baseline groundwater summary table for PA-1 is contained in Chapter 6 of its PAA-1 Application and in Attachments 4A and 4B of the draft PAA, UR03075PAA1 (PAA1).
- 191. The findings of fact set forth in and/or incorporated into Section V.C. are incorporated by reference herein.

The Groundwater Quality Data from Which the Baseline Table in the PAA-1 Application Was Derived (First Round)

- 192. The baseline groundwater summary table in the PAA-1 Application contains values derived from (a) 22 mine area monitor wells completed in the production zone (BMW-1 through BMW-22); (b) 18 baseline wells completed in the production zone within the production area (PTW-1 through PTW-14; RBLB-1; RBLB-3 through RBLB-5); and (c) nine mine area monitor wells completed in the nonproduction zone (OMW-1 through OMW-9).
- 193. The baseline groundwater summary table contains: a) the averages and ranges of the parameter values determined for the designated production zone monitor wells (BMW-1 through BMW-22), which are monitor wells completed in the production zone; (b) the averages and ranges of the parameter values determined from eighteen designated production zone wells in the production area (PTW-1 through PTW-14; RBLB-1; RBLB-3 through RBLB-5), which are baseline wells completed in the production zone within the production area; and (c) the averages and ranges by zone of the parameter values determined for designated nonproduction zone monitor wells (OMW-1 through OMW-9), which are monitor wells completed in nonproduction zone.
- 194. The water samples from which the baseline table in the PAA-1 Application was derived are representative of groundwater quality in the areas where they were collected.

## The Values in the Baseline Table in the PAA-1 Application

Production Zone Monitor Wells (BMW-1 through BMW-22)

195. The water samples obtained from the designated production zone monitor wells (BMW-1 through BMW-22) and used to derive the data included in the baseline groundwater summary table are representative of groundwater quality in the area of the monitor well ring surrounding PA-1.

196. This data establishes an average value for radium-226 of 12.1 pCi/l, which exceeds the EPA drinking water standard for radium-226 (5 pCi/l).

Nonproduction Zone Monitor Wells (OMW-1 through OMW-9)

- 197. The water samples obtained from the designated nonproduction zone monitor wells (OMW-1 through OMW-9) and used to derive the data included in the baseline groundwater summary table are representative of groundwater quality in Sand A overlying the PA-1 production area.
- 198. This data establishes an average value for arsenic of .018 mg/l, which exceeds the EPA drinking water standard for that constituent (.010 mg/l). With the exception of one well, all of the OMWs have arsenic values in excess of the .010 mg/l standard.

Production Zone Baseline Wells (PTW-1 through PTW-I4; RBLB-I; RBLB-3 through RBLB-5)

- 199. The water samples obtained from the eighteen baseline wells (PTW-1 through PTW-14; RBLB-1; RBLB-3 through RBLB-5) and used to derive the data included in the baseline groundwater summary table are representative of groundwater quality in the areas where UEC plans to mine.
- 200. This data establishes an average value for radium-226 of 1684.0, which greatly exceeds the EPA drinking water standard of 5 pCi/l for radium-226. Every one of the baseline wells has a radium-226 value in excess of the 5 pCi/l standard. The lowest value is 10 pCi/l.
- 201. This data establishes an average value for uranium of .804 mg/l, which exceeds the EPA drinking water standard of .03 mg/l for uranium.

### Later Sampling (Second and Third Rounds)

- 202. Constituent values in groundwater (including values for uranium and radium-226) naturally vary over time, even in the same location.
- 203. The variance in uranium levels between the sampling rounds is consistent with natural conditions and natural variability.
- 204. The variance in radium-226 levels between the sampling rounds is consistent with natural conditions and natural variability.
- 205. The baseline groundwater summary tables attached hereto as Attachments 4A and 4B in Exhibit D include values from all groundwater samples collected from baseline wells, including those collected at the time that the draft PAA was issued and those collected in rounds 2 and 3.
- 206. The water samples collected in rounds 2 and 3 are representative of groundwater quality in the areas where they were collected.

## D. Control parameter upper limits

- 207. UEC's proposed upper limits control parameters are contained in Table 6.5 in the PAA-1 Application and Attachment 5 of the draft PAA, UR03075PAA1 (PAA1).
- 208. The control parameters proposed by UEC and set forth in the draft PAA are chloride and conductivity.
- 209. The control parameter upper limits for the production zone monitor wells (BMWs) were calculated by adding 25% to the highest recorded values for chloride and conductivity from those wells, BMW-1 through BMW-22.
- 210. The control parameters for the nonproduction zone monitor wells (OMWs) were calculated by adding 25% to the highest value recorded for chloride and conductivity from the those wells, OMW-1 through OMW-9.
- 211. Chloride and conductivity will provide timely detection of any migration of mining fluids.
  - a. Because of the production process, the mining fluid will contain elevated levels of chlorides.
  - b. Conductivity and chloride are conservative parameters in that they move with the groundwater without undergoing retardation.
- 212. As shown on Attachment 5 in Exhibit D, the highest values for the control parameters—chloride and conductivity—are different than the values listed in the draft PAA-1 and the PAA-1 Application due to the incorporation of the additional two sample sets, rounds 2 and 3. The upper limits control parameters contained in Attachment 5 in Exhibit D hereto are based upon the revised tables attached hereto as Attachments 4A and 4B in Exhibit D, and thus incorporate those differences.

### E. Monitor wells

- 213. The monitor wells for PA-1 are described in the PAA-1 Application and the draft PAA, UR03075PAA1 (PAA1).
- 214. The hydrologic test results and interpretation are included in the PAA-1 Application.

## Production Zone Monitor Wells (BMW-1 through BMW-22; GW-1; GW-2)

- 215. UEC has installed twenty-two production zone monitoring wells, BMW-1 through BMW-22. These wells form a ring around the outside of the production area for PA-1, and each one is completed in Sand B, where the mining is proposed to occur.
- 216. Each of the BMWs was installed in accordance with the applicable TCEQ standards. Each well was properly cased and cemented from bottom to top.

- 217. Each of the BMWs are located within 400 feet from the production area for PA-1.
- 218. The angle formed by lines drawn from any one of the BMWs to the nearest BMW is not greater than 75 degrees. The spacing of the monitor wells is adequate to intercept excursions.
- 219. The hydrologic test results demonstrate that the BMWs are hydraulically connected to the production area.
- 220. Pursuant to the draft PAA-1, UEC will also install two additional production zone monitoring wells, GW-1 and GW-2, prior to the commencement of mining operations in PA-1. GW-1 and GW-2 will be located approximately 80 feet inside the monitor well ring and will provide additional monitoring protection. An excursion in this location would be detected in the GWs before it would hit the monitor ring wells.

## Nonproduction Zone Monitor Wells (OMW-1 through OMW-9)

- 221. UEC has installed nine (9) nonproduction zone monitor wells, OMW-1 through OMW-9.
- 222. Each of the OMWs was installed in accordance with applicable TCEQ standards.
- 223. Each of these wells is located inside the production area for PA-1 and is completed in Sand A.
- 224. The PA-1 production area is approximately 36 acres. Thus, there is one OMW per every four acres of production area.

### Buffer Zone

225. All designated monitoring wells (BMWs, GWs and OMWs) are located at least 100 feet inside the boundary of the Mine Permit Area.

## F. Cost estimates for aquifer restoration and well plugging and abandonment

- 226. UEC meets the applicable requirements for financial assurance under Tex. WATER CODE §§ 27.051, 27.073, and 30 TAC Chapters 37 and 331.
- 227. UEC's cost estimates for aquifer restoration and well plugging and abandonment for PA-1 are contained in the PAA-1 Application and in the draft PAA, UR03075PAA1 (PAA1), and they comply with all applicable regulatory requirements.
- 228. The cost estimate covers the plugging of monitor wells, baseline wells and injection/production wells in accordance with the closure plan, including all costs related thereto. The cost estimate accounts for the quantity of cement needed to cement each well from bottom to top, which will prevent movement of fluids through the wells out of the injection zone or to the land surface.

229. The cost estimate also includes a detailed estimate for the cost of restoration of groundwater in PA-1, including all costs related thereto. The estimate accounts for pumping and electrical costs, treatment costs, repairs and maintenance, labor, laboratory analysis, and operating expenses, while taking into account number and size of well patterns, screen lengths, effective porosity and a flare factor.

## G. Other information required to evaluate the application

- 230. UEC included all applicable information required by the ED in its PAA-1 Application and its response to the ED's notice of deficiency.
- 231. UEC included all applicable information required by the instructions on the PAA application form promulgated by the Commission.
  - a. UEC provided a map that locates and identifies the lease area, permit area, and existing and proposed production areas with respect to easily identifiable landmarks such as towns or main roads. This information is contained in Chapter 1.0 and Figure 1-3, Mine Location Map.
  - b. UEC provided an oriented drawn to scale map locating all monitor wells, production wells, and baseline wells, and indicating acreage of the permit area, mine area, depth to the top of the production zone, and elevation of the production zone. This information is contained in Chapter 1.0 and Figure 1-4, Production Area Map.
  - c. UEC provided detailed cross-sections along the dip and strike accurately identifying all overlying aquifers, the first underlying aquifer, and the geologic interval to be mined. The geologic interval identified as the "production zone" will be the zone authorized for production by the proposed authorization. The lithologic columns are supported with electric logs, and the piezometric levels are indicated. This information is contained in Chapter 3.0 and Figures 3-1 through 3-5a.
  - d. UEC provided a written description of the geology and hydrology of the mine area, which is supported with maps, cross-sections showing geologic units, lithology, structural features, and other pertinent information. For hydrologic verification, a description of the major aquifer, hydraulic gradient, water quality indicators (i.e., TDS, Na, SO4) for the mine area, and other pertinent information are included. This information is contained in Chapters 3.0 and 5.0.
  - e. UEC provided maps showing piezometric levels and TDS contours for production and non-production zone aquifers with baseline wells located and identified. This information is contained in Chapter 5.0 and associated contour maps showing TDS and piezometric levels.
  - f. UEC provided all required information regarding each of the monitor wells and the baseline wells completed in the production and non-production aquifers. This information is contained in Chapters 5.0 and 6.0.

- g. UEC provided a Restoration Progress Report:
  - 1) A description of restoration procedures or restoration demonstration procedures, proposed, in progress, or completed.
  - 2) A description of the restoration progress that currently has been achieved.
  - A description of the fluid handling capacity of the disposal facilities required to accomplish restoration using the proposed restoration procedure within the time frame specified in the mine plan. This information is contained in Chapter 7.0.
- h. UEC provided a detailed calculation and tabulation of the volume of fluids to be handled by storage and disposal facilities at their maximum, and comparative capacity of the facilities that will be available. This information is contained in Chapter 7.0 and Table 7.2, Updated Fluid Handling Requirements vs. Capacity.

# H. Whether the application for PAA-1 complies with all applicable statutory and regulatory requirements.

232. The PAA-1 Application complies with all applicable statutory and regulatory requirements.

# VII. Other Findings

- 233. Based on the above findings of fact, the use or installation of the injection wells is in the public interest.
- 234. Based on the above findings of fact, no existing rights, including, but not limited to, mineral rights, will be impaired.
- 235. Based on the above findings of fact, both groundwater and surface fresh water can be adequately protected from pollution with proper safeguards. The draft Mine Permit and draft PAA-1 impose terms and conditions reasonably necessary to protect fresh water from pollution.
- 236. Based on the above findings of fact, UEC has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.
- 237. Any Finding of Fact more appropriately considered a Conclusion of Law is hereby adopted as such.

### CONCLUSIONS OF LAW

#### VIII. Jurisdiction

238. The Commission has jurisdiction over UEC's application for Class III UIC area permit UR03075, its request for an aquifer exemption, and its application for production area authorization UR03075PAA1 as part of the Commission's authority to permit Class III injection wells, pursuant to Tex. WATER CODE §§ 5.013(a)(8) and 27.011.

- 239. Based on the above Findings of Fact, public notice of UEC's application for Class III UIC area permit UR03075 and request for aquifer exemption and application for production area authorization UR03075PAA1 were provided as required by the Tex. Water Code and Title 30 of the Texas Administrative Code (TAC), and affected persons were provided an opportunity to request a hearing on UEC's Applications in the manner required by law.
- 240. The Commission has authority to hold hearings concerning UEC's Applications, pursuant to the provisions of Tex. Water Code §§ 5.102(b) and 27.018.
- 241. Proper notice of the hearing and the preliminary hearings was provided to affected persons pursuant to Tex. Gov't Code §§ 2001.051 and 2001.052 and Tex. Water Code § 27.018.
- 242. SOAH has jurisdiction to conduct a hearing and to prepare a PFD in this matter. TEX. GOV'T CODE § 2003.047.

### IX. Burden of Proof

243. As to the Applications referred by the Commission to SOAH, UEC has the burden of proving that its application for Class III UIC area permit UR03075, its request for an aquifer exemption, and its application for production area authorization UR03075PAA1 comply with applicable law by a preponderance of the evidence. 30 TAC § 80.17(a).

# X. Mine Application

- A. Whether the use and installation of the injection wells are in the public interest under Texas Water Code §27.051(a). Public interest in regard to this issue includes whether UEC's mining operation or restoration activities will adversely impact the public interest by unreasonably reducing the amount of groundwater available for permitting by the Goliad County Groundwater Conservation District.
- 244. Based on the findings of fact set forth in and incorporated into Section V.A above, UEC's Mine Application is in the public interest consistent with the policy of the state as defined by the Legislature under Tex. Water Code § 27.051(a).
- 245. TCEQ rules require TCEQ to implement Chapter 27 of the Texas Water Code in a manner consistent with the policy of this state to: maintain the quality of fresh water in the state to the extent consistent with the public health and welfare and the operation of existing industries, taking into consideration the economic development of the state; prevent underground injection that may pollute fresh water; and require the use of all reasonable methods to implement this policy.
- 246. The scope of the public interest consideration must be appropriately limited so that it does not conflict with other law.

- 247. It is contrary to legislative intent and principles of statutory interpretation to interpret a more general statutory requirement, like the public interest requirement, to override more specific law--such as the rule of capture and the exemption from groundwater conservation district regulation of groundwater used for *in situ* mining.
- 248. The Class III injection well requirements that apply to in situ mining do not regulate the volume of fresh water used by a permittee.
- 249. In Texas, groundwater law is based upon the "rule of capture."
- 250. Texas Water Code Section 36.117(l) specifically states that Chapter 36 of the Texas Water Code does not apply to production or injection wells drilled for uranium.
- B. Does the Applicant's compliance history require denial of the application under Tex. WATER CODE § 27.051(e) and 30 TAC Chapter 60?
- 251. Based on the findings of fact set forth in Section V.B above, UEC's compliance history does not require denial of the Mine Application under Tex. WATER CODE § 27.051(e) and 30 TAC Chapter 60.
- 252. Section 60.2 sets forth the method by which a person's compliance history is classified i.e., as "high," "average" or "poor." Section 60.2 provides that "[i]f there is no compliance information about the site at the time the executive director develops the compliance history classification, then the classification shall be designated as 'average performer by default."
- 253. The compliance history prepared by the ED was prepared in accordance with Texas Water Code § 27.051(e) and 30 TAC Chapter 60.
- C. Does the application adequately and accurately describe baseline conditions of the groundwater in the proposed permitted area under applicable requirements of 30 TAC Chapter 331?
- 254. Based on the findings of fact set forth in Section V.C above, the Mine Application adequately and accurately describe baseline conditions of the groundwater in the proposed Mine Permit Area under applicable requirements of 30 TAC Chapter 331.
- 255. There are no TCEQ rule requirements for establishing baseline conditions as part of the Class III application, but baseline quality is defined as "[t]he parameters and their concentrations that describe the local groundwater quality of an aquifer prior to the beginning of injection operations." 30 TAC § 331.2(12).
- D. Does the application meet all applicable criteria of 30 TAC § 331.122, related to required consideration by the Commission prior to issuing a Class III Injection Well Area Permit?

- 256. Based on the findings of fact set forth in Section V.D above, the Mine Application meets all applicable criteria of 30 TAC § 331.122, related to required consideration by the Commission prior to issuing a Class III Injection Well Area Permit.
- 257. Section 331.122 provides a list of items the Commission shall consider in its administrative and technical review before issuing an area permit.

# E. Has the Applicant demonstrated that the proposed exempted aquifer meets the applicable criteria of 30 TAC § 331.13?

- 258. Based on the findings of fact set forth in Section V.E above, UEC has demonstrated that the proposed exempted aquifer meets the applicable criteria of 30 TAC § 331.13. This conclusion is further supported by the holding in Western Nebraska Resources Council v. United States Environmental Protection Agency, 943 F.2d 867, 870 (8<sup>th</sup> Cir. 1991).
- 259. For a portion of an aquifer to be exempted, Section 331.13 requires that the portion of the aquifer (1) not currently serve as a source of drinking water for human consumption; and (2) will not in the future serve as a source of drinking water for human consumption for one or more specified reasons. 30 TAC § 331.13(c)(1),(2).
- 260. The test for the first subpart (*i.e.*, that the portion of the aquifer not currently serve as a source of drinking water) is whether or not anyone is "currently using water for human consumption from the [aquifer] in the specific lateral boundary" of the proposed exemption area. 50 Fed. Reg. 5253 (February 7, 1985), at 5253; 55 Fed. Reg. 21191 (May 23, 1990), at 21192.
- 261. The second subpart under Section 331.13 is that the portion of the aquifer sought to be exempt will not in the future serve as a source of drinking water for human consumption for one or more specified reasons. Those reasons include:
  - (A) It is mineral, hydrocarbon or geothermal energy bearing with production capability;

... or

(C) It is so contaminated that it would be economically or technologically impractical to render the water fit for human consumption.

30 TAC § 331.13(c)(2)(A), (C).

262. No designation of an exempted aquifer shall be final until approved by the EPA as part of the delegated Underground Injection Control Program.

## F. Is the application sufficiently protective of groundwater quality?

263. Based on the findings of fact set forth in and/or incorporated into Section V.F above, the Mine Application is sufficiently protective of groundwater quality.

# G. Does the application adequately characterize and describe the geology and hydrology in the proposed permit area, including fault lines, under the applicable rules?

- 264. Based on the findings of fact set forth in and/or incorporated into Section V.G above, the Mine Application adequately characterizes and describes the geology and hydrology in the proposed permit area, including fault lines, under the applicable rules.
- 265. Section 331.122(2)(A) requires a map showing "faults, if known or suspected. Only information of public record is required to be on this map . . . ." 30 TAC § 331.122(2)(A).

# H. Do the geologic and hydraulic properties of the proposed permit area indicate that the Applicant will be able to comply with rule requirements?

- 266. Based on the findings of fact set forth in and/or incorporated into Section V.H above, the geologic and hydraulic properties of the proposed permit area indicate that the Applicant will be able to comply with rule requirements.
- 267. Hydrologic testing is not required for a Class III Underground Injection Control permit, although an applicant must provide a description of the proposed hydrologic testing program. 30 TAC § 331.122(2)(G).
- 268. Prior to conducting any mining operations near the Northwest Fault, UEC will have to apply for, and the Commission will have to issue one or more PAAs in addition to the PAA for PA-1.
- 269. The results of the hydrologic testing program must be submitted with an application for a PAA, which is needed to mine an ore body within an area permit. 30 TAC § 305.49(b)(6).

# I. Does the Applicant meet the applicable requirements for financial assurance under Texas Water Code §§ 27.051, 27.073, and 30 TAC Chapters 37 and 331?

- 270. Based on the findings of fact set forth in Section V.I above, the Applicant meets the applicable requirements for financial assurance under Texas Water Code §§ 27.051, 27.073, and 30 TAC Chapters 37 and 331.
- 271. Applicable law does not require UEC to include estimated restoration costs for all production areas, and the assertion to the contrary is not supported by the plain meaning of the applicable TCEQ rules.
- 272. Section 27.051(a)(4) of the Texas Water Code provides that a permit may be issued if the Commission finds that the applicant has made a satisfactory showing of financial responsibility if such showing is required by Section 27.073.
- 273. Section 27.073(a-1), in turn, requires a person to whom an in situ uranium mining injection, monitoring or production well permit is issued to maintain financial security to ensure that each abandoned well is properly plugged.

- 274. Chapter 37 of the TCEQ rules describes acceptable forms of financial assurance, specifies the precise wording of the various instruments that may be used, and imposes requirements to insure that the issuer or trustee of the instrument is solvent and financially and otherwise qualified to perform if called upon. 30 TAC §§ 37.71, 37.201, 37.231, 37.211, 37.301, 37.321, 37.331.
- 275. In addition, Section 37.7021 of Chapter 37 addresses the timing of the provision of financial assurance. It provides that financial assurance for well plugging and abandonment must "be in effect before commencement of drilling operations." 30 TAC § 37.7021(c).
- 276. Section 331.143 of the TCEQ rules requires (a) the preparation of a written cost estimate of plugging the wells; (b) that this cost estimate take into account all applicable costs and be kept at the facility for the life of the project; and (c) that this cost estimate be reviewed and updated as necessary on an annual basis, including adjustments for inflation.
- 277. Section 331.143 also incorporates by reference the requirements listed in Sections 331.46 and 331.86. Section 331.46 contains requirements that well plugs shall not allow the movement of fluids through the wells, out of the injection zone or to the land surface and shall consist of cement or an equally protective material; closure plans must demonstrate that no movement of contaminants that will cause pollution from the production zone into a USDW will occur; and lists factors for consideration in determining the adequacy of plugging and abandonment plans.
- 278. Section 331.86 lays out the timeframe for effectuating plugging and abandonment and requires written acknowledgment from the ED after the fact. Under Section 331.144, financial assurance cannot be released without the written approval of the ED.

## J. Is the application sufficiently protective of surface water quality?

- 279. Based on the findings of fact set forth in Section V.J above, the Mine Application is sufficiently protective of surface water quality.
- 280. In the context of in situ uranium mining, an RML is a license that authorizes the possession, receipt, processing, and temporary storage of natural uranium prior to transfer to authorized recipients. 30 TAC §§ 336.1, 336.211. An RML also authorizes temporary storage of byproduct material (waste) prior to transfer to authorized recipients and authorized disposal facilities. *Id.* at § 336.1101.
- 281. The RML application process focuses on facility design and standard operating procedures that ensure the safety of workers, the environment and members of the public from radiation exposure. 30 TAC § 336.304.
- 282. Applicants for an RML must examine levels of radiological exposure to facility workers and members of the public via various pathways, including surface water. 30 TAC §§ 336.301 336.368 (Subchapter D, Standards for Protection Against Radiation).

283. An integral part of an RML application includes Operational Safety and Emergency Procedures to specifically address potential exposure to employees and the public; it also provides procedures for ensuring that potential exposures are minimized to the lowest extent possible. 30 TAC § 336.210.

## K. Are local roadways sufficient to handle traffic to and from the proposed facility?

284. Based on the findings of fact set forth in Section V.K above, local roadways are sufficient to handle traffic to and from the proposed facility.

# L. Whether UEC's proposal for restoration of groundwater to baseline levels as contained in the permit application is reasonable and adequate.

285. Based on the findings of fact set forth in Section V.L above, UEC's proposal for restoration of groundwater to baseline levels as contained in the permit application is reasonable and adequate.

# M. Will the Applicant's proposed activities negatively impact livestock and wildlife, including endangered species?

- 286. Based on the findings of fact set forth in and/or incorporated into Section V.M above, the Applicant's proposed activities will not negatively impact livestock and wildlife, including endangered species.
- 287. Applicants for an RML must examine levels of radiological exposure to facility workers and members of the public via various pathways such as air, soils, surface water, and food chain (crops, cattle, etc.). 30 TAC §§ 336.301 336.368 (Subchapter D, Standards for Protection Against Radiation).

### N. Will the Applicant's proposed activities negatively impact the use of property?

- 288. Based on the findings of fact set forth in and/or incorporated into Section V.N above, the Applicant's proposed activities will not negatively impact the use of property.
- 289. TCEQ does not have jurisdiction to consider effects on property values when determining whether to approve or deny a Class III injection well application.
- 290. The issuance of an injection well permit "does not convey any property rights of any sort" and "does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of state or local law or regulations." 30 TAC § 305.122 (b)-(c); see also id. § 305.125(16) (providing that all injection well permits must include a condition stating that it "does not convey any property rights of any sort, or any exclusive privilege").

## O. Will the Applicant's proposed activities adversely affect public health and welfare?

291. Based on the findings of fact set forth in and/or incorporated into Section V.O above, the Applicant's proposed activities will not adversely affect public health and welfare.

- P. Whether the proposed mining is in the recharge zone of the Gulf Coast Aquifer (Evangeline component).
- 292. There is no statute or rule prohibiting in situ mining within an aquifer recharge zone.
- Q. Whether the Gulf Coast Aquifer is a confined aquifer in the areas of Goliad County where UEC will conduct UIC activities.
- 293. There is no statutory or regulatory prohibition against conducting in situ uranium mining in an unconfined aquifer.
- R. Whether mining fluids will migrate vertically or horizontally and contaminate an USDW (underground source of drinking water).
- 294. Based on the findings of fact set forth in and/or incorporated into Section V.R above, mining fluids will not migrate vertically or horizontally and contaminate an USDW.
- 295. The version of TRC's plugging rule in effect at the time of the contested case hearing, 16 TAC § 11.139, became effective on May 7, 1982, and required that boreholes be plugged in a manner that prevents the mixing of water from different sand units within the hole.
- 296. Prior to commencing mining operations in any additional production area(s), UEC will have to apply for, and the Commission will have to issue a production area authorization. To obtain a production area authorization, an applicant must design and conduct a hydrologic testing program for the production area in which it seeks authorization to mine and must submit the results of such hydrologic testing as a part of its PAA application.
- S. Whether there are any USDWs within the injection zones proposed by UEC.
- 297. Under the TCEQ rules, a USDW is an aquifer or its portions (A) which supplies drinking water for human consumption; or (B) in which the groundwater contains fewer than 10,000 milligrams per liter total dissolved solids; and (C) which is not an exempted aquifer. 30 TAC § 331.2(107).
- T. Whether any USDWs within Goliad County will be adversely impacted by UEC's proposed in situ uranium operations.
- 298. Based on the findings of fact set forth in and/or incorporated into Section V.T above, no USDWs within Goliad County will be adversely impacted by UEC's proposed in situ uranium operations.
- 299. Once an aquifer exemption is issued, the exempted aquifer is no longer a USDW.
- U. Whether there is a "practical, economic and feasible alternative to an injection well reasonably available" within the meaning of that term as set forth in TWC § 27.051(d)(2).

- 300. Based on the findings of fact set forth in Section V.U above, there is no "practical, economic and feasible alternative to an injection well reasonably available" within the meaning of that term as set forth in Tex. Water Code § 27.051(d)(2).
- 301. Section 27.051(d) of the Texas Water Code provides that in determining if the use or installation of an injection well is in the public interest, the Commission must consider whether there is an alternative to "an injection well," not whether there is an alternative to the proposed injection well location.

## XI. PAA-1 Application

#### A. Mine Plan

- 302. Based on the findings of fact set forth in and/or incorporated into Section VI.A above, the PAA-1 Application's mine plan complies with all applicable regulatory requirements.
- 303. A mine plan is defined as a plan for operations at a mine, consisting of: (A) a map of the permit area identifying the location and extent of existing and proposed production areas; and (B) an estimated schedule indicating the sequence and timetable for mining and any required aquifer restoration. 30 TAC § 331.2(63).

#### B. Restoration Table

- 304. Based on the findings of fact set forth in and/or incorporated into Section VI.B above, the PAA-1 Application's restoration table complies with all applicable regulatory requirements.
- A restoration table must include all parameters in the suite established in accordance with the requirements of 30 TAC §331.104(b). 30 TAC § 331.107(a)(1).
- 306. Under 30 TAC § 331.104(b), any of the parameters in the suite, except for uranium and radium-226, may be removed from the list of restoration parameters if an applicant can demonstrate that a parameter or parameters is not a suitable restoration parameter.
- 307. When UEC filed its PAA-1 Application, the TCEQ regulations required that each production area authorization contain a restoration table developed by using either:
  - (1) the higher value in either the column headed mine area average or the column headed production area average for parameters shown on the production area baseline water quality form for the production zone; or
  - (2) predictions of restoration quality that are reasonably certain after giving consideration to the factors specified in §331.107(f) of this title (relating to Restoration).

### 30 TAC § 331.104(d) (West 2008).

308. Under the current TCEQ regulations, the restoration values shall consist of either:

- (a) the mean concentration or value for that parameter based on all measurements from groundwater samples collected from baseline wells prior to mining activities; or
- (b) a statistical analysis of baseline well information proposed by the owner or operator and approved by the executive director that demonstrates that the restoration table value is representative of baseline quality.

30 TAC § 331.107(a)(1).

## C. Baseline water quality table

- 309. Based on the findings of fact set forth in and/or incorporated into Section VI.C above, the PAA-1 Application's baseline table complies with all applicable regulatory requirements.
- 310. A bascline water table must be submitted with an application for a production area authorization. 30 TAC § 305.49(b)(3).
- 311. The baseline water table or groundwater analysis report summary serves as the basis for the restoration table. Figure 3 of the application form promulgated by the Commission sets forth the format of the groundwater analysis report summary.
- 312. When UEC filed its PAA-1 Application, the TCEQ regulations required one or more samples from each designated monitor well (production and nonproduction zone) and each designated production well in the production area, to be summarized as follows:
  - (1) mine area baseline-the averages and ranges of the parameter values determined for the designated production zone monitor wells;
  - (2) production area baseline-the averages and ranges of the parameter values determined from at least five designated production zone wells in the production area; and
  - (3) nonproduction zone baseline-the averages and ranges by zone of the parameter values determined for designated nonproduction zone monitor wells.

## 30 TAC § 331.104 (West 2008).

- 313. The requirements of the current TCEQ regulations are similar in many ways, specifying independent and representative samples from:
  - (1) mine area monitor wells completed in the production zone;
  - (2) mine area monitor wells completed in nonproduction zones; and
  - (3) baseline wells completed in the production zone within the production area.

## 30 TAC § 331.104(a).

314. Under the current TCEQ regulations, however, the number of wells must be "a minimum of five baseline wells, or one baseline well for every four acres of production area,